

THE INFORMATION CHANNEL

**INFO/soft
5000
Display
Systems**

First Edition (March 1986)

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HOW TO USE THIS MANUAL

This manual has been carefully prepared to help you get the most out of the INFO/soft 3000 and INFO/soft 5000 video display system. Its six sections present a complete reference guide to installation and operation of the software, plus many ideas for applications.

Section 1 is an Introduction and Overview of the INFO/soft 3000 and 5000 software and its applications.

Section 2 deals with the initial Set-Up including hardware selection, installation and initial configuration of the 'System Disk'.

Section 3 is the Operator's Guide providing detailed information on various features and functions.

Section 4 explains INFO/soft 5000's graphics and how to create both static and animated graphic displays.

Section 5 outlines some of the options that can be added to both the INFO/soft 3000 and INFO/soft 5000 software. As you add these options, we have left enough room so that you can place their instruction manuals in this section.

Section 6 is the Appendix. It contains a wealth of information on the hardware, protecting memory with batteries, specifications and a copy of the Warranty and License Agreement.

The best way to learn how to use your new INFO/soft display system is to try it! Experiment. Trying out ideas will help you answer a lot of your questions, while enhancing your experience and confidence.

One final point, INFO/soft 3000 and 5000 were designed to be very easy to use. Just press the 'HELP' key on the computer and a handy reference screen will appear. You will probably find that you will not need to refer to this manual initially. But, it contains a wealth of information on some of the more advanced features of the software and you will want to refer to it after you have become familiar with the basic operation.

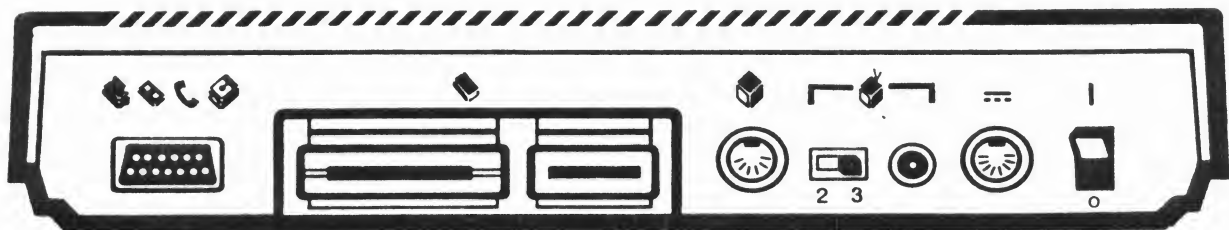
OTHER HARDWARE CONFIGURATIONS

Because of the inherent flexibility of the INFO/soft 3000 and 5000 cartridges, several other possible configurations are possible. Among these are Multi-channel and Wire-line operation; application of background audio to the internal modulator; control of external devices, etc. Please refer to the Appendix for further information on these and other hardware configurations.

CARTRIDGE INSTALLATION

NOTE: INSERTION AND REMOVAL OF THE CARTRIDGE WHILE THE POWER IS 'ON' MAY CAUSE DAMAGE TO THE CARTRIDGE.

Before turning on power to your equipment, insert your INFO/soft Cartridge into the computer's cartridge slot. On an ATARI 65XE and 130XE, the cartridge plugs into the rear socket marked 'CARTRIDGE'. The label should be UP. On an Atari 800XL, this slot is located on top of the keyboard. Insert it through the 'trap door' with the label facing you.



Cartridge

BACK-UP COPIES

The 'System Disk' includes a Disk Copy Program that allows the ORIGINAL LICENSOR to create backup copies of INFO/soft 3000 and 5000 System diskettes. Please remember that all INFO/soft software is copyrighted and protected by International, Federal, and State law. Unauthorized copies are prohibited, and each disk contains a serial number that allows us to trace unauthorized copies to the original purchaser. Please do not abuse this privilege. Cartridges cannot be copied. INFO/soft Technology, Inc. vigorously enforces copyright violations.

PLEASE! MAKE BACK-UP COPIES OF YOUR SYSTEM DISK!

PLACE THE ORIGINAL DISKETTE IN A SAFE PLACE AND USE YOUR COPIES. DAMAGED DISKETTES CAN BE REPLACED BY INFO/soft BUT THERE WILL BE A SERVICE CHARGE. BE SAFE — MAKE UP COPIES NOW!

Turn the computer ON while holding down the SELECT key. Follow the screen directions for creating back-up copies.

DEMONSTRATION

Your System Disk is initially configured to load and display a series of demonstration pages. Simply place the system disk into the Disk Drive with the label facing up. Turn on the computer and within a few seconds the demonstration pages will appear. To terminate the display, press the 'BREAK' key or the 'HELP' key.

CONFIGURING THE SYSTEM DISK

The System Disk provides access to a number of unique features. It can be configured to load in languages other than English, load in extended commands that modify or add features to the software, or automatically reload pages and restart the display after a power failure has occurred.

To configure the System Disk, insert the 'System Disk' into disk drive #1. While **HOLDING DOWN** the 'SELECT' key, turn the computer ON. The screen will show the following:

Press [1] to Change Parameters
Press [2] to Copy Disks

Press [1] and the following screen will appear:

[1] - English Only. Otherwise Program
Will Ask for Language Selection

Direct Load of Other Languages:

1 = German 2 = French 3 = Spanish 4 = Swedish

1	2	3	4
[0]	[0]	[0]	[0]

Load Extended Commands:

13	14	15	16	17	18	19	20
[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]

[1] - Load All Pages and Regions

[1] - Jump Directly to Display Mode

[0] - Jump Directly to Editor

If Both are 0, Start in HELP menu

A '1' in any of the boxes indicates that the feature described has been selected. The sample above shows how we initially configure the System Disk so that it will load the demonstration pages and begin to display automatically.

If you choose the 'English Only' option (as shown), the 'Direct Load of Languages' option will be ignored. If the 'English Only' option is not selected (a '0' instead of a '1'), then one of the other indicated languages will be loaded. If no language is specified, the program will ask for a selection everytime it is started. NOTE: The language option is available only when using a disk drive. When using the cartridge alone, English is automatically assumed.

Extended commands (X-Commands) are used to add features to the cartridge and are explained in detail in Section 3 of this manual. For example, X-13 allows you to schedule pages. Each page can be made to turn ON and OFF at predesignated times throughout the month. If you want this feature to be loaded automatically each time the computer is turned on, simply place a '1' in the box corresponding to the 'X-13' Command. 'X-14' will load an OPTIONAL high resolution graphic header into the upper region of the screen. This is used for company logos or other designs. To load it automatically, place a '1' in the box corresponding to the 'X-14' Command.

Toward the bottom of the screen, you will see a box for 'Loading Pages'. Place a '1' in the box and all of the pages and regions stored on the disk will load when the computer is turned ON. Place a '1' in the next box, marked 'Jump Directly to Display Mode', and your system will do just that. With '1' in both of these boxes, you can set up your system to automatically load and start displaying pages when the system is first turned on, or immediately after a power failure.

Finally, a '1' in the last box 'Jump to Editor' will cause the program to jump into the edit mode when the power is first turned on. If neither the 'Display' mode or the 'Edit' mode is selected, the program will display the HELP screen.

Use the Cursor keys to move around the screen. When you have made the appropriate choices, press the 'BREAK' key and these parameters will be saved on the disk for future uses. The system will then configure itself as indicated.

TURN-ON PROCEDURE

Install your Computer and Disk Drive (if you are using one) as shown in Section 2 — Set-up. Insert the Cartridge, and, if you are using a Disk Drive, turn it ON. Then, insert the 'System Disk' into Drive #1. Turn ON the Computer and within a few seconds the screen will appear.

There are several options available when using the disk drive, such as, loading languages other than English. Refer to Section 2 — Set-Up for more information on these options.

IMPORTANT!

If you are using a least one disk drive, you MUST have the 'System Disk' in Drive #1 WHEN YOU TURN ON THE COMPUTER or you will get a 'BOOT ERROR' message on the screen and the cartridge will not operate.

If you have a disk drive but do not want to use it, turn it OFF before turning the Computer ON.

THE KEYBOARD

Before beginning, refer to the following few paragraphs to see how various keys are used on the Atari keyboard. Note that many of the keys have graphic symbols, many more than are available on ordinary Atari computers. Therefore, you should ignore the symbols inscribed on the keys and refer to the manual for the correct graphic symbol.



Pressing this key displays instructions on the screen. Press 'Break' to resume editing a page.



Used to begin the page display.



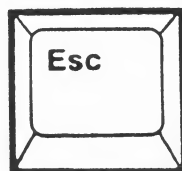
Used to select the Sequence — either random or numerical order. Only pages that are filled will be displayed.



Pressing this key while in 'edit' changes the screen color. There are 16 background color options that can be chosen by this method. See 'X-1 Full Color Palette' in Section 4 for ways to choose any of 128 different colors.



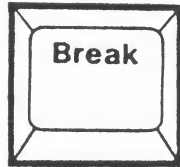
Causes computer to reset and begin the program again. Page Memory will remain intact. Normally this key is not used.



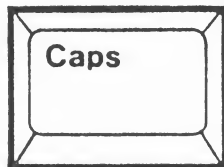
Used to select the various functions. Press this key once, then press the appropriate letter or symbol to perform a specific function. These functions can be referred to by pressing the 'HELP' key.



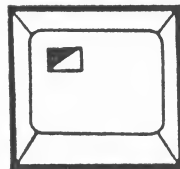
This key deletes (erases) the character to the left of the cursor and moves the cursor one space to the left. If you hold down the SHIFT key while pressing this key, the whole line will be erased and the remaining text will be moved up one line.



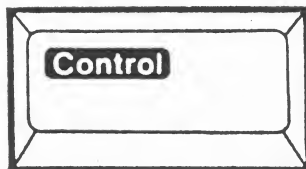
This key is used to 'interrupt' whatever function the computer is doing.



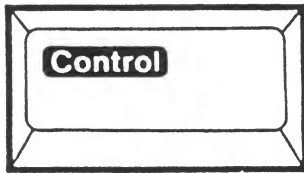
Shifts the screen into Upper/Lower case somewhat like a typewriter. Useful in Graphic Fonts 1 and 5, which contain Lower Case characters. In the other Graphic Fonts, 'CAPS' is used to select various graphic symbols.



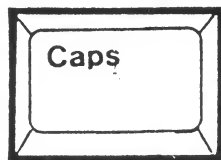
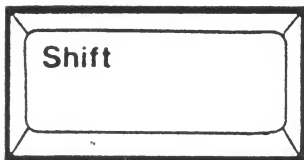
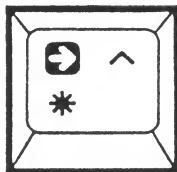
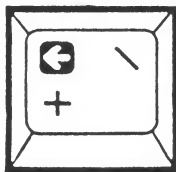
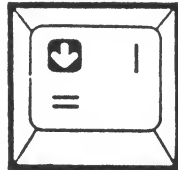
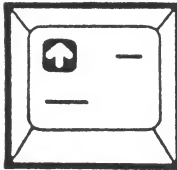
This key turns the INVERSE VIDEO mode on and off. After pressing this key, all subsequent keystrokes will appear in INVERSE VIDEO until it is pressed again.



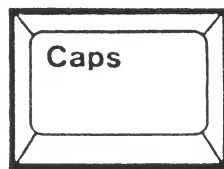
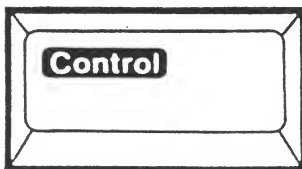
Always used in conjunction with another key. Prints graphic characters.



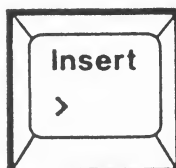
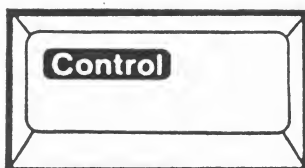
Moves the cursor around the screen.



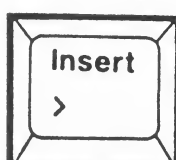
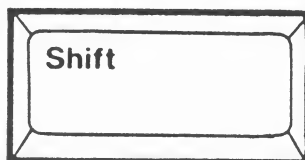
Locks the computer keyboard into the Upper Case mode for Alphabet characters.



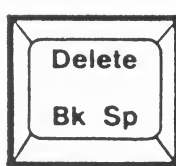
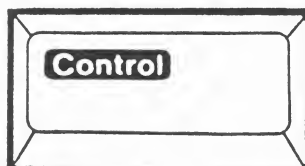
Locks the computer keyboard into the Control mode for convenient entry of some of the graphic symbols.



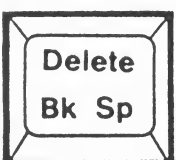
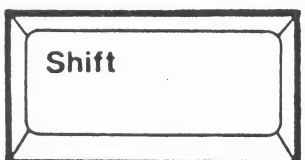
Inserts a space between characters.



Inserts a LINE between text.
Moves remaining lines down.



Deletes a character underneath the cursor and shifts the remaining characters on the line to close up the empty space.



Erases an entire line and DELETE moves lines below the cursor UP one line.

SCREEN REGIONS

The screen is divided into regions: Upper, Page, Crawl and Bottom, The bottom region has two parts: a fixed message and a date/time display. Each of the message regions can be changed as desired. Background color and Graphic character set is also changeable. Refer to the section that describes each region for more information.

UPPER REGION

Enter the Upper Region by pressing the 'ESC' key followed by the 'U' key. The cursor will appear in the upper left corner of the region. Change the contents of the Upper Region as needed. To change the background color, press the 'OPTION' key, or use the 'X-1' command described elsewhere in this Section. If desired, you can use another Graphic character set by pressing 'ESC' - 'G'. Exit by going to another region.

The Upper Region is 'static'. It does not change, always appearing at the top of the screen.

As an option, you may order a special 'High Resolution' logo or design for display in this region. It can be loaded from disk, or on special order, it can be placed permanently in the cartridge. Please consult INFO/soft Technology directly for details and a quotation.

BOTTOM REGION

Enter the Bottom Region by pressing 'ESC' - 'B'. The cursor will appear in the upper left of the region. Change the display as desired. Change background colors with the 'OPTION' key, or use the 'X-1' command described elsewhere in this Section. Use 'ESC' - 'G' to change to another graphic character set. Exit by entering another region.

If you want to use double-height characters in this region, use Graphic Font 2.

Note: The Date/Time display cannot be altered. It is normally displayed for 10 seconds, followed by a 10 second display of the bottom Region message. This feature allows the cable operator or Hotel/Motel manager to sell ad space in this area.

If you wish to display only the Bottom region, eliminating the alternating Date/Time Region, you may do so by adding a wire jumper between Pins 7 and 9 of control port #1 (Joystick Ports) on the right side of the Atari computer.

CRAWL REGION

To edit the Crawl Region, Press 'ESC' - 'C'. The entire crawl region will appear in the page area of the screen. Simply type in your crawl message. Do NOT add extra spaces at the end of the line. Words will appear to be broken up as you enter text, but will appear normally when displayed. Press 'OPTION' to change the color of the Crawl line. Exit by entering another region. Or, press 'START' to see how your crawl will look when it is displayed.

TIME/DATE REGION

Enter the Time/Date Region by pressing 'ESC' - 'T'. Move the cursor over the displayed time and enter the current time. change the date if needed. When you press 'RETURN', the time will be set. The Time/Date should not need resetting unless a power failure has occurred. The internal clock is Quartz crystal controlled and should maintain a very high degree of accuracy. However, the clock speed may be adjusted through the use of the 'X-5' command described in this section under 'Xtended Disk Functions'.

The Date format is displayed as MM-DD-YY in NTSC systems and DD.MM.YY in PAL and SECAM systems.

If you wish to display only the Date/Time region, eliminating the alternating Bottom Message Region, you may do so by adding a 270K ohm resistor between Pins 7 and 9 of control port #1 (Joystick Ports) on the right side of the Atari computer. The resistor may be of any type and wattage.

PROMPT LINE

Whenever you need to enter a number, or need to do something, a message will appear in the Crawl region of the screen. This is known as the 'Prompt Line'.

HELP SCREEN

If you should forget which command to use, press the 'HELP' key on the computer and a special help screen will appear. (If you have an older Atari that does not have a Help key, use the BREAK key instead!) You can check the Help Screen at any time.

ESC U	Edit Upper	ESC F	Set Format
ESC P	Edit Page #	ESC G	Graphic Set
ESC C	Edit Crawl	ESC /	Center Text
ESC B	Edit Bottom	ESC D	Set Dwell
ESC L	Load Page	ESC T	Set Time
ESC S	Save Page	ESC M	12/24 Hour
ESC +-	Page Up/Down	ESC #	Modem Speed
ESC R	Remote Send	ESC 1-4	Set Color
ESC SHIFT L	Load All Pages and Regions		
ESC SHIFT S	Save All Pages and Regions		
SHIFT START	Quick Preview of Display		
OPTION	Choose Colors		
SELECT	Alter Sequence		
START	Begin Display		

STANDARD CARTRIDGE FUNCTIONS

AUTOMATIC TIMEOUT

An automatic timeout is built into the INFO/soft 3000 and 5000. If you should walk away from the keyboard while editing, and stay away for longer than 5 minutes, the cartridge will automatically put itself into the Display mode. This is done because many times an operator will be editing 'on-line', i.e., as the operator is editing the character generator is being viewed by cable system subscribers. Should the operator be called away, and forget to return, the subscribers would be left viewing that one unfinished page for hours or perhaps even days! With the automatic timeout feature, the cartridge is put into a Display mode whenever the keyboard has been left unused for 5 minutes or longer.

BACKGROUND COLORS

To change the color of the background, position the cursor in the region or on the page that you want to change. Then, press the 'OPTION' key. Each time you press this key, the background colors will change. There are 16 colors, or color combinations that can be chosen in this manner.

There are actually 128 colors that may be chosen using the 'X' Command functions. (see this Section of the manual for instructions on 'X' functions and their use). We have chosen 16 of these colors and made them easy to choose by pressing a single key. The Small characters (Format 1) are either bright (white) or dark (black) on a solid or multi-colored background.

The Medium and Large size characters (Formats 2 and 3) may appear in up to 4 different colors. They can also flash on and off for attention grabbing displays. See the sections: CHARACTER COLORS and FLASHING for more details.

CHARACTER COLORS

Screen Formats 2 and 3 use Medium and Large sized characters. You can choose either of two colors for these characters by pressing 'ESC' - '1' for color #1 and 'ESC' - '2' for color #2. After pressing these keys, all of the characters following will be in the color chosen. Note that the actual color will depend upon the background color chosen with the 'OPTION' key. If you want to select another color or color combination from the palette of 128 colors, you can use the 'X' command described elsewhere in this Section.

CENTERING TEXT

To automatically center text on a line, move the cursor to the line and press 'ESC' - '/'. The line will be centered instantly!

DELETING CHARACTERS AND LINES

To Delete a CHARACTER, position the Cursor over the character to be deleted. While HOLDING DOWN the 'CONTROL' key, press 'DELETE'. The character under the Cursor will be deleted and all of the remaining characters on the line will be shifted one space to the left.

To delete an ENTIRE LINE, position the Cursor on the line that you want to erase. HOLD DOWN the 'SHIFT' key and press 'DELETE'. The line will be deleted and all of the lines below the Cursor will move up one line.

DOUBLE HEIGHT CHARACTERS

When you are in page Format 1 (40 characters per line), you may use Graphic Character set 2 to place double height letters on the screen along with the standard small size characters. This can be done in one of two ways. The easiest way is to use the 'X3' command described later in this section. Letters and numbers are automatically drawn on the screen.

If you are not using a disk drive, you can manually 'draw' these double-height characters. Actually, these letters are drawn in two halves. First, hold down the 'CONTROL' key and press the corresponding letter. You will 'draw' the top half of the desired character. Then, using the cursor 'arrow' keys, position the cursor underneath the top half of the desired character. Then press 'CAPS' once to place the keyboard into lower case mode. Then type the lower half of the character by pressing the appropriate key.

DWELL TIME

Each page can have a different dwell time. For example, each page can be independently displayed for a period of as little as 0 seconds (actually it is about 1/5 second) or as long as 99 seconds. Each page will automatically be displayed for 10 seconds unless you change it. To set another dwell time press 'ESC' - 'D'. A prompt will appear in the Crawl region asking you to enter a time from 0 to 99 seconds. Do so and remember to press the RETURN key afterwards. The new dwell time will then be recorded. By setting the Dwell time to 0 seconds and altering the page sequence, you can create animated effects which are very 'eye-catching'.

ENTERING TEXT

Simply type your message just as you would on an ordinary typewriter. You can correct mistakes by pressing the BACKSPACE key or by moving the Cursor and typing over the mistake.

FLASHING CHARACTERS

In Screen Formats 2 and 3, the Medium and Large sized characters can be made to flash by first pressing either 'ESC' - '3' or 'ESC' - '4'. All characters typed in afterwards will flash when the display is started. The color of the characters displayed with the 'ESC' - '3' command is, in most cases, the same as those displayed with the 'ESC' - '1' command. In a few cases, these colors will vary. Sixteen color combinations are chosen with the 'OPTION' key. Or, you can create your own colors with the 'X-1' command described elsewhere in this Section.

FORMATS

There are three screen formats. Each format has a different size screen and a different character height and width. Change formats by pressing 'ESC' - 'F'. Each time you do this, the format will change. Depending upon the TV standard in use, the three formats have screen sizes as follows:

FORMAT	-----NTSC-----	----PAL & SECAM----
1	16 Lines x 40 Char.	20 Lines x 40 Char.
2	16 Lines x 20 char.	20 Lines x 20 Char.
3	8 Lines x 20 Char.	10 Lines x 20 Char.

GRAPHIC CHARACTERS

INFO/soft 5000 has five character fonts which contain over 500 graphic characters. INFO/soft 3000 has two character sets with no graphic symbols (These are still called 'Graphic Sets' however). To choose a Graphic Character set, press 'ESC' - 'G'. The prompt line will indicate which Graphic Font has been chosen. Each time you press 'ESC' - 'G' the Graphic Font will change.

To choose a graphic character, hold down the 'CONTROL' key and press the appropriate graphic key. See the diagrams in Section 4 - GRAPHICS for the position of each graphic key.

NOTE: Some character sets have extra graphic characters in place of lower case letters.

HELP SCREEN

The Help Screen provides a quick reference for most of the common commands that you will be using. Just press the 'HELP' key on the computer and it will appear. If you have an earlier version of the Atari 800 computer without a Help key, press 'BREAK' for the Help Screen. The Help Screen can be loaded in five languages including English.

INSERTING CHARACTERS AND LINES

To insert a CHARACTER in a line, move the cursor to the desired position. HOLD DOWN the 'CONTROL' key and Press 'INSERT'. Each time you do this, the characters to the right of the cursor will be moved one space to the right. Then, type the desired character into the 'hole' that you have created.

NOTE: Characters can be pushed off the right side of the screen. They cannot be recovered.



To insert a BLANK LINE into the text, position the Cursor at the desired location. HOLD DOWN the 'SHIFT' key and press 'INSERT'. All of the text, from the Cursor down, will be moved down one line.

NOTE: Lines can also be pushed down off of the screen. If this is done, you may recover one line only. All others will be lost.

INTERNATIONAL CHARACTERS

Graphic Set 1 contains many international characters. These are displayed on the screen by HOLDING DOWN the 'CONTROL' key and then pressing one of the standard character keys. For a list of these international characters see Section 4 - GRAPHICS.

INVERSE VIDEO

To print characters in an Inverse video format, first press the  key. All characters typed will then be in a reverse or inverted video style. To return to normal, press the  key again.

LOADING FROM DISK

To load a page that has been saved on disk previously, press 'ESC' - 'L'. Enter the page number that you want to load and press 'RETURN', or simply press 'RETURN' if it is the same page number that you are currently using.

To load ALL PAGES from the diskette, press 'ESC' - 'SHIFT' - 'L'. Hold the SHIFT key down while pressing 'L'. Loading all pages can take several minutes depending on the number of pages stored on the disk.

To load ONLY the Crawl Region, Upper Region, AND Bottom Region, first enter any of these regions and press 'ESC' - 'L'. ALL THREE regions will be loaded from the disk.

LOWER CASE LETTERS

To set the keyboard for both Upper and Lower case letters (In FORMAT 1 only) press 'CAPS' once. Lower case letters are available in Graphic Fonts 1 and 5. Graphic Fonts 2, 3, and 4 have extra graphic characters instead of lower case letters.

MILITARY (24 HOUR) TIME

To set the clock for 'Military' or 24 Hour time, press 'ESC' - 'M' once. Each time you do this the time display will change format (either 12 or 24 hours). The prompt line will indicate whether you are in 12 or 24 Hour format.

MODEM SPEED

For remote or multi-channel operation, you may select either 300 or 1200 baud speed by pressing 'ESC' - '#'. When your INFO/soft system is first turned on it will be in a 300 baud speed. However, you may add a simple jumper to one of the control port pins on the side of the computer so that it will be in the 1200 baud speed. Refer to the Appendix (see 'Control Port Connections - Pin 5') for further information about this jumper.

PAGE EDIT

To get to the desired page, press 'ESC' - 'P' then enter the page number and press RETURN. The page will be displayed and the appropriate page number will be shown in the Crawl region.

PAGE UP/PAGE DOWN

While in edit, you can advance to the next page by pressing 'ESC' - '+'. To go back to a previous page simply press 'ESC' - '-'.

TABS

Use the 'TAB' key to move across the screen. The TAB spacing is fixed at 5 spaces. Each time you press the TAB the cursor will advance 5 spaces to the right.

UPPER CASE CHARACTERS

If you want to use ONLY Upper case in Format 1 (Small characters), you can lock the keyboard by pressing 'SHIFT' and 'CAPS' simultaneously. ONLY UPPER CASE LETTERS ARE USED IN THE MEDIUM AND LARGE TEXT FORMATS.

STARTING THE DISPLAY

To Start the display, simply press the START key! You can interrupt the display by pressing either the HELP key or the BREAK key. The HELP key will stop the display and return to the Help Screen. The BREAK key will stop the display and put you into the page edit mode.

SYNCHRONIZING TO AN EXTERNAL TIME SOURCE

In certain advertising or 'electronic newspaper' applications, synchronization of the page display to an external time clock may be desirable. For example, 'electronic newspapers' often wish to schedule certain pages to appear at fixed times so that the viewer knows exactly when to tune in for, say, the classified ads, or the weather, etc.

With 120 pages, timed to display for 15 seconds each, you can have two complete page cycles each hour. The key is then to make sure that the page cycle begins at exactly the top of the hour. If it does, then the remaining pages will appear at exactly the same time each and every hour. You can do this by bringing Pin #6 (RESTORE) of Control Port #1 to ground (logic LOW) momentarily. Doing this causes the sequence to restore to the first page indicated. This RESTORE line can be controlled by an external clock that provides a pulse every hour on the hour. For more info on the Control lines, refer to the Appendix — 'CONTROL PORT CONNECTIONS'.

SAVING PAGES ON DISK

Pages, and regions can be saved either as a whole or individually on systems equipped with one or more disk drives. To save all memory (all pages, regions, sequencing, etc.) simply press:

'ESC' - 'SHIFT' - 'S'

Hold down the 'SHIFT' key when you press 'S'. To save an individual page on the disk, press:

'ESC' - 'S'

The prompt line will read:

SAVE: Page #, or RETURN for Current

If you are on page 1 and want to save it as page 1 on the disk, simply press RETURN. If you want to save Page 1 in page 20 of the disk, enter '20' and press 'RETURN'.

To save only the Upper, Bottom, AND Crawl Regions, place the cursor into any one of these regions (ESC - U, etc.) and press 'ESC' - 'S'. The three regions will be saved as a group.

If you have an INFO/soft 5000 with a Single Disk Drive, you can manually save pages 41 through 80 or pages 81 through 120 on separate disks. Go to page 41 and save it as 'Page 1' on the second disk. Then, save page 42 as 'Page 2', etc. Likewise, save page 81 as 'Page 1' on a third disk. This is very cumbersome, but it does work and may be useful in limited applications. Two drives are desirable.

QUICK PREVIEW/VIDEO ARCHIVING

If you would like to run through the display without waiting for each page to display for its entire dwell time, use the 'Quick Preview' feature. Simply hold down the 'SHIFT' key and press 'START'. Hold the 'SHIFT' key down until the pages start displaying. Each page will be displayed for 1 second, regardless of its normal dwell time setting. Press 'BREAK' to stop.

This feature permits you to conveniently keep a 'Video Archive' of pages displayed day-by-day. To archive your display, record the 'Quick Preview' display on your VCR. Since a full 120 pages will be displayed in about 2 minutes, you will be able to archive 60 days of displays on a 2 hour Beta or VHS tape! Use the VCR's slow motion or pause controls to view the pages at your leisure. The Date/Time region on the bottom will provide an easy reference point as you search through a tape at high speed.

SEQUENCING PAGES

Pages may be displayed in Numerical Order starting at Page 1, or Randomly in any order desired. If you do nothing, the display will start at Page 1 and proceed upward. Only pages which are not blank will be displayed. If, for example, you have messages on pages 1, 3, 5 and 21. The display will start on page 1, then jump to pages 3, 5 and 21. All other blank pages will be ignored!

If you want to choose a random page display press the 'SELECT' key. The Bottom Region will change to reveal a series of page sequence numbers. Move the Cursor and change the numbers to any sequence desired. Press RETURN to save the sequence. To abort without changing the sequence, Press the HELP key.

It may be easier to first clear the Bottom Region of the old sequence numbers before entering the new ones. Do this by holding down the 'SHIFT' key and pressing 'CLEAR'. The entire area will be cleared. Then, type in the desired sequence.

Sequence numbers may be entered in any of the following formats or in any combination:

- 1 2 3 etc. — Displays pages 1 2 3 only
- 1 - 20 — Displays pages 1 through 20
- (20-25)6 — Displays pages 20 through 26 a total of 6 times

As an example, the sequence could look like the following example:

1-20 (21-24)6 64 25-63

Pages 1 through 20 will be displayed, then pages 21 through 24 will be displayed 6 times, followed by page 64, then pages 25 through 63. The sequence will then repeat. This example, while complicated, illustrates the flexibility of random sequencing.

NOTE: UP TO 39 CHARACTERS CAN BE USED IN THE SEQUENCE, INCLUDING '(', ')', '-', BUT EXCLUDING SPACES.

NOTE: Blank pages should not appear in the display. If they do, it means that you either typed a character on a page and then deleted it without using 'SHIFT' - 'CLEAR' to clear the page, or you loaded a blank page from the disk. Both will tell the computer that the page has been 'filled' and should be displayed. To find out which blank page is displaying, use the 'Quick Preview' feature mentioned earlier in this section of the manual. It will display all 'filled' pages and their page numbers. Any blank pages can be cleared out by going to the appropriate page and by pressing 'SHIFT' and 'CLEAR' at the same time.

'XTENDED' DISK FUNCTIONS





The INFO/soft 3000 and 5000 cartridges are designed to be expanded. New features can be added at a later date. This is done through use of 'Xtended' disk functions. You **MUST** have at least one disk drive on your system to use these extra features.

These features are actually mini programs that reside on the System disk supplied with your cartridge. The 'System Disk' should be in Drive 1 at all times. They are used by entering an 'ESC' - 'X' sequence described below.

Once an X-1, 2, 3, 4, or 5 function has been loaded, it remains in the computer's memory until another is loaded. To re-use the last X function just press 'ESC' - 'X' - 'RETURN'. It is not necessary to re-load it.

X1 - FULL COLOR PALETTE

Use this feature to change the Background to any of 128 different colors. Large and medium size text (those that appear in 20 character wide screens) can also be changed. Press 'ESC' - 'X' then enter '1'.

Now, change the Background color by pressing the 'arrow' keys,  ,  ,  , or  . An UP or DOWN arrow increases or decreases the color intensity. LEFT or RIGHT arrows change the Hue. It is not necessary to hold down the 'CONTROL' key when pressing the arrow keys.

If you are using screen formats 2 or 3, (20 character wide) you can change the character colors, too. Remember, you normally choose characters by pressing 'ESC' - '1' or '2' or '3' or '4'. To change the color of #1, press '1' then use the arrow keys to choose the color. Then, go to '2', '3', or '4'. To get back to the Background color, press '5'.

When you have chosen your colors, press 'BREAK' to resume normal editing.

In screen Format 1, you can change the intensity of the small characters or graphic symbols by pressing '1' and using the UP or DOWN arrow keys.

X2 - PAGE DUPLICATION

If you want to move pages around, this feature allows you to create duplicates instantly. Press 'ESC' - 'X' - '2' to load the program from your 'System Disk'. Then, enter the number of the page you want to copy. It will be duplicated instantly! To duplicate another page, go to the new page, press 'ESC' - 'X' - 'RETURN'. It is not necessary to enter the '2' again since the feature is already loaded. If you use another 'X' command, you will need to enter its number though. There is room for only one 'X' command at a time.

This feature also allows an operator to combine graphics and text from several different pages. See Section 4 for more details on its use.

X3 - TITLING FONTS

NOTE: This feature is largely reserved for the INFO/soft 5000 cartridge because it makes extensive use of graphic characters to form the Title fonts. However, INFO/soft 3000 users may use 'FONT 11' to 'draw' double height characters on the screen.

There are a number of special titling fonts that can be used to enhance the appearance of your pages. These fonts are 2 to 4 times larger than the standard 'small' size characters and are actually drawn on the screen using graphic characters associated with Graphic Fonts 2, 3, 4 and 5. Thus, these special titling fonts can be used **ONLY** when you are using Graphic Fonts 2, 3, 4 and 5. Upper and Lower case letters, and numbers can be used. A few symbols such as, \$! - and SPACE, are also included. The accompanying illustrations provide examples of these titling fonts.

To 'draw' titling fonts on the screen, you must complete the following steps:

- a. Select Graphic Font 2, 3, 4 or 5 as desired. If you are using a graphic from the Library disk and titling it, you will most likely be in one of these fonts already.
- b. Press 'ESC' - 'X' - '3' to select the X-3 function.
- c. Enter the Title Font number when prompted.
- d. Position the cursor on the screen and begin typing.
- e. When finished, press 'BREAK' to resume normal operation.

X-13 - PAGE SCHEDULING

Another standard feature included with your 'System Disk' is page scheduling. This feature allows you to turn pages ON or OFF at predesignated times. For example, an advertisement for a weekend sale could be set to turn ON at 6:15 PM Thursday, March 13th and OFF at 4:55 PM Sunday, March 16th. Each page may be scheduled independently, too!

To use this feature, press:

'ESC' - 'X' - '13'

The function will be installed into the computer. To access it press:

'ESC' - 'A' (Alter Schedule)

NOTE: The 'ESC' - 'A' feature will be added to the Help Screen as a reminder that it has been installed!

The prompt line will read:

001: ON Date 00 Time 00:00 OFF 00 00:00

The number on the far left corresponds to the page number. When all of the dates and times are '00' the page will be displayed continuously. Thus, when you first begin, all pages will be 'zeroed out'. To have page 23 turn ON at 6:15 PM on March 13, and OFF again at 3:40 PM on March 16, your line should look like this:

023: ON Date 13 Time 18:15 OFF 16 15:40

Note that we use a 24 hour time format to avoid confusion. To get to page 23 or to any other page, use the ARROW keys. When finished, press the 'BREAK' key to exit.

When you save pages to your disk the scheduling information will be stored along with it.

**REMEMBER TO REMOVE SCHEDULED TIMES
BY ZEROING OUT THE ON AND OFF TIMES
WHEN YOU NO LONGER NEED TO
SCHEDULE PAGES.**

If you plan to make constant use of this feature, you might want to have it loaded automatically. Refer to Section 2 - Set-Up for information on 'Configuring the System Disk'.

DIFFERENCES BETWEEN THE 3000 and 5000

INFO/soft 3000 software is limited to 40 pages of memory, and has NO graphic character sets. It is designed for TEXT ONLY applications. INFO/soft 5000 has a full 120 pages of memory and three additional graphic character sets. Pages created on INFO/soft 3000 can be transmitted directly to an INFO/soft 5000 equipped system. However, care must be taken when creating pages on an INFO/soft 5000 for use on the INFO/soft 3000. Page numbers should remain between 1 and 40, and only character sets 1 and 2 can be used, since the graphic sets are not available on the INFO/soft 3000. Otherwise, the features and functions are identical.

AN OVERVIEW OF INFO/soft VIDEO DISPLAYS

INFO/soft 3000 and INFO/soft 5000 displays were designed to be very easy to use. In fact, while we provide this rather extensive manual, and hope that you use it to get the maximum benefit from this remarkable product, we designed this software to be used without a manual at all!

The software is actually packaged in two forms. In fact, it is unique in the industry. A cartridge contains all of the standard features and functions. But, it has been designed in such a way as to permit expansion. These expanded features are loaded from the 'System Disk'. It is not necessary to use this disk; the cartridge is a self-contained unit by itself. But, use of a disk drive provides the user with many more features and, of course, disk storage for pages which have been created.

To make this a 'World-Class' product, our engineers designed the software to work on all three World TV standards - NTSC, PAL, and SECAM. Simply plug the cartridge into the appropriate version of Atari computer and the software will configure itself to operate on that TV standard!

INFO/soft 3000 and 5000 were designed for maximum video stability and quality. Neither was designed for overlaying titles on video. This would have compromised the video quality of the product leading to the horrible character jitter and edge-crawl found on many other character generators.

REMOTE FUNCTIONS

COMPATABILITY BETWEEN INFO/soft SYSTEMS

With a few exceptions, the INFO/soft 3000 and 5000 are compatible and pages may be transferred between them. You must remember that the INFO/soft 5000 cartridge has 3 graphic character sets that are not available on the INFO/soft 3000. Therefore, if you are planning to create pages on an INFO/soft 5000 and send them to an INFO/soft 3000 system, use Character Sets 1 and 2 only. Also, since the INFO/soft 3000 has only 40 pages of memory, do not try to send pages 41 through 120 to it. Pages created on an INFO/soft 3000 system can be sent without regard to an INFO/soft 5000 system.

X14 - HIGH RESOLUTION HEADERS

An optional feature built into the INFO/soft 3000 and 5000 cartridges permits the placement of a High Resolution Graphic Header in the Upper Region of the Screen. This header is the same size (3 lines) as the normal header, but is drawn in a high resolution graphic mode (320 x 24 pixels). And, it permits the accurate reproduction of a company logo or other design. If you would like further information about this option, call or write:

**THE INFORMATION CHANNEL
2624 Southern Blvd • Suite 200-1
Virginia Beach, VA 23452
(804) 463-1201**

REMOTE SEND

To send pages to another INFO/soft 3000 or 5000, use the 'ESC' - 'R' command. Enter the telephone number, and press 'RETURN'. You will then be asked to enter the page list to be sent. To send all pages, simply press 'RETURN' again. For example, to send an EXACT copy of the contents of your machine to a remote location, press:

'ESC' - 'R' - TELEPHONE # - 'RETURN' - 'RETURN'

The cartridge will dial the remote location and transfer all pages and regions, set the time at the remote location to within ± 1 second of the time currently set on your machine, set the appropriate sequence, and then hang up. The remote end will display pages exactly the same way as your unit. As the regions and pages are being sent to the remote site, you will see them on your screen. What you are seeing is what was ACTUALLY received at the other end. This amazing feature is called REMOTE VIEWING and is described below in more detail.

TRANSFER OF INDIVIDUAL PAGES OR REGIONS

In some cases, it may be desirable to transfer **ONLY** one or two items, such as a new Upper or Bottom Region, a correct Time, a new Sequence, or just a few new pages to update the remote display. You can do this simply and quickly. When you are prompted to enter a 'page list' to send, enter any or all of the following:

- B - Sends the Bottom Region**
- C - Sends the Crawl Region**
- S - Sends the Sequence Information**
- T - Sends the Time**
- U - Sends the Upper Region**
- X - Sends certain X commands**

For example, entering:

C T 1 3

will send a new Crawl Region, update the Time, and send pages 1 and 3 to the remote location. Nothing else will be sent.

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SECTION 1.

INTRODUCTION & OVERVIEW

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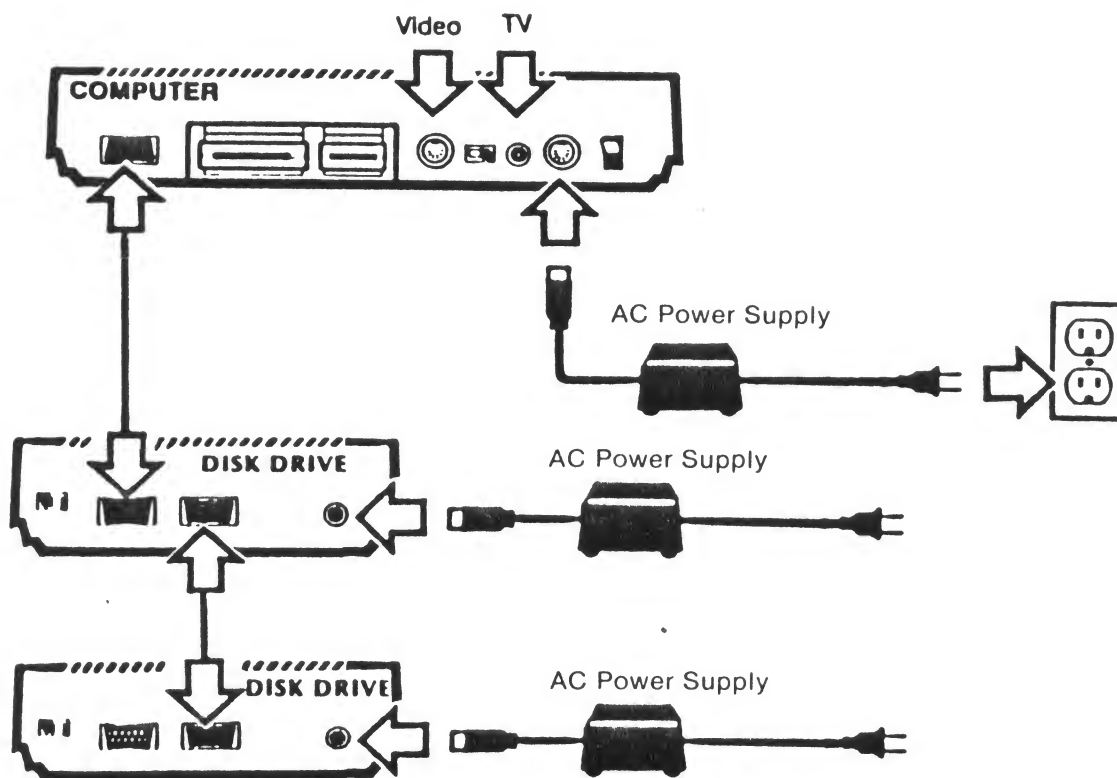
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STAND-ALONE SYSTEMS

For stand-alone (NON REMOTE) applications connect your equipment as shown in the figure below. If you are using disk drives, be sure to set the drive numbers according to the instructions found in the disk drive manual.

PLEASE REFER TO THE APPENDIX FOR PIN CONNECTIONS IF YOU ARE CONSTRUCTING YOUR OWN VIDEO CABLE.



COMPUTER AND DISK DRIVES

This software may be used with or without a disk drive. The disk drive provides page storage and some additional features not available with the cartridge alone. If you are using an ATART 130XE computer, INFO/soft 5000 will provide 120 pages of memory. If you wish to store all 120 pages on disk, you will need two disk drives. With computers other than the Atari 130XE, INFO/soft 5000 provides 40 pages of memory. In this case, only ONE disk drive is needed.

Any Atari or Atari-compatible disk drive designed to work with the 800XL, 65XE or 130XE will work. For maximum reliability, data is stored in a Single Density format.

If you are using an INFO/soft 3000 cartridge, you will be limited to 40 pages of memory. One disk drive will take care of your storage requirements.

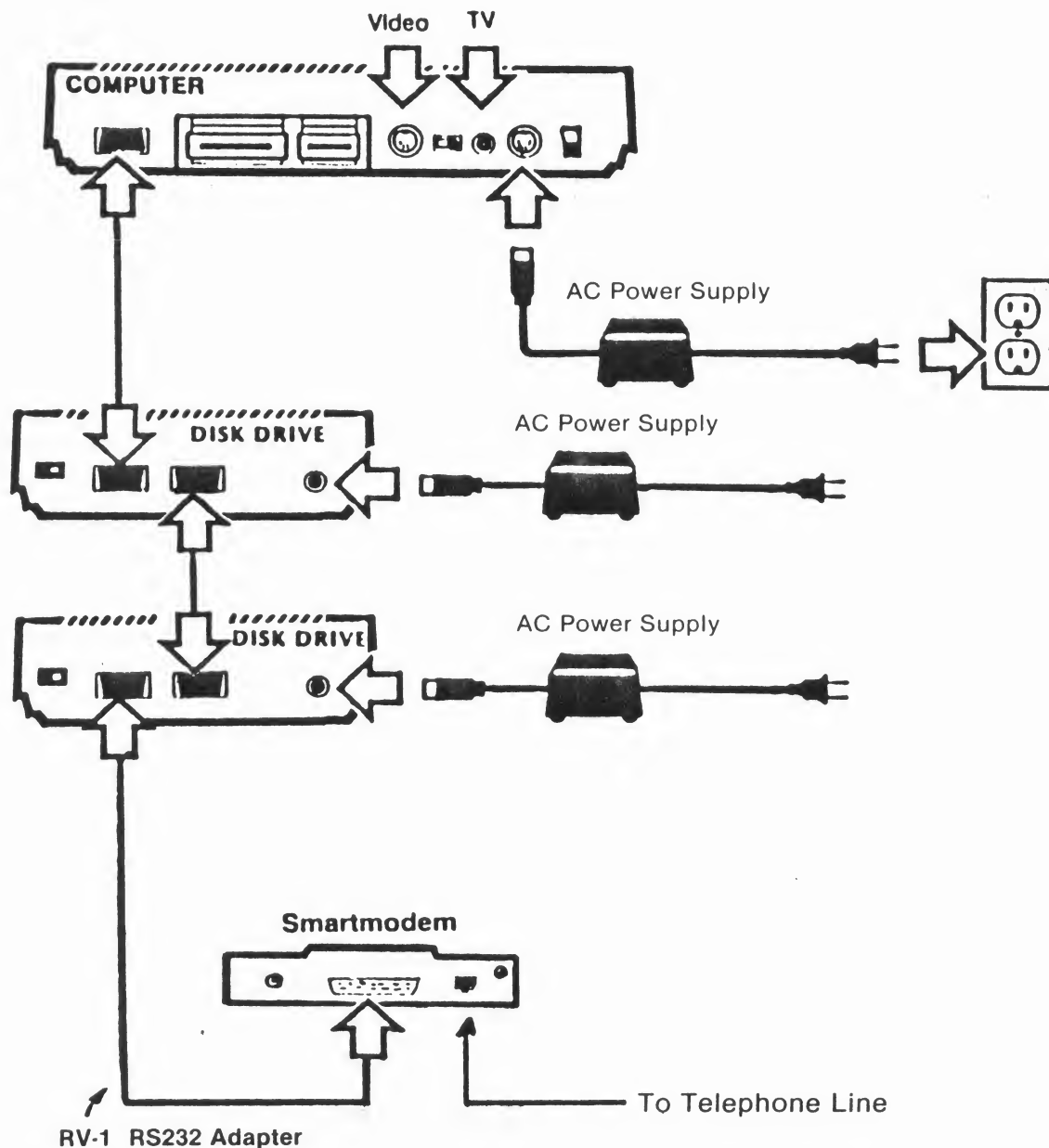
The use of a disk drive is recommended since it provides access to all of the features available within the cartridge.

INTERNATIONAL TV STANDARDS

INFO/soft 3000 and 5000 software will automatically detect the type of Atari computer used (they are available in NTSC, PAL-I, PAL-B, and SECAM versions) and adapt itself accordingly. With the 625 line PAL and SECAM versions, pages will have 20 lines instead of 16 with NTSC computers. All internal timing differences will be corrected automatically within the software. Pages can be sent from one system to another via telephone modem or on floppy disk without regard to the TV standard being used.

REMOTE SYSTEMS — OFFICE END

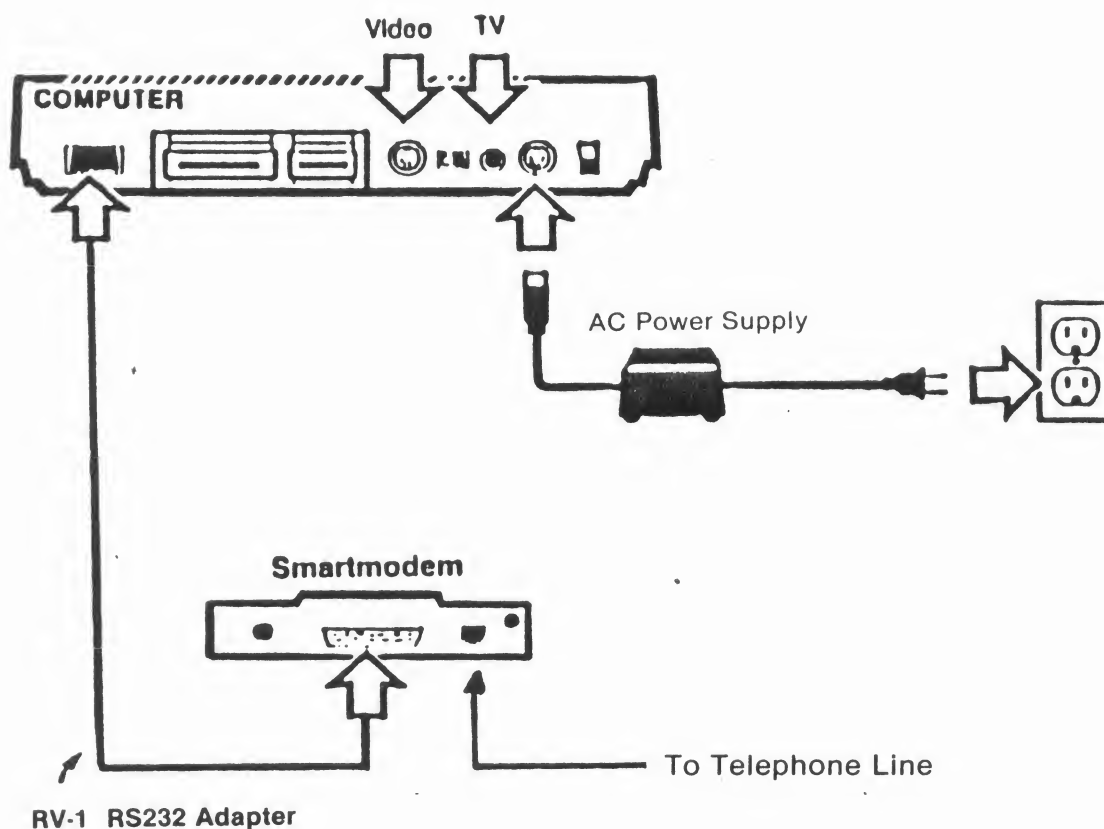
For remote applications, the equipment will be connected as shown. There will be little difference between the Headend (Distant) location and the Office location, except that the latter may need disk storage. PLEASE REFER TO THE APPENDIX FOR PIN CONNECTIONS IF YOU ARE CONSTRUCTING YOUR OWN VIDEO CABLE.



REMOTE SYSTEMS — HEADEND (Distant End)

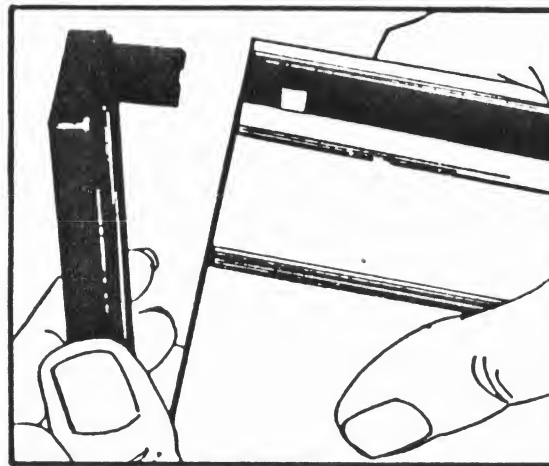
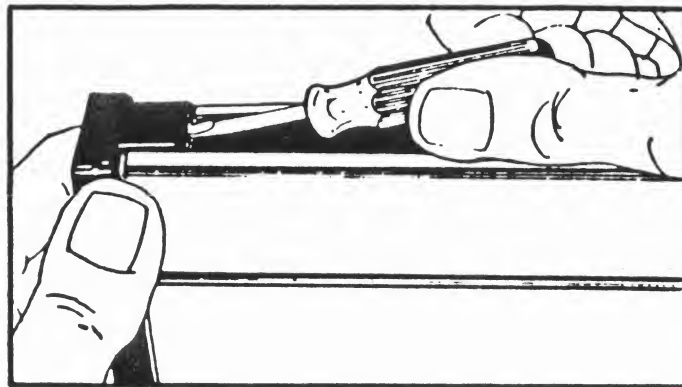
The Headend generally does not need disk storage. However, a small battery backup as described in the Appendix may be useful if there are frequent power outages.

PLEASE REFER TO THE APPENDIX FOR PIN CONNECTIONS IF YOU ARE CONSTRUCTING YOUR OWN VIDEO CABLE.



MODEMS

For the modem, we recommend the HAYES Smartmodem 300. This is an excellent unit. Before use, however, you **MUST** set an 8 position switch located behind the front panel. Refer to the figure below and remove the front panel. Next, set all of the switches to their **UP** positions, **EXCEPT** for Switch 4 which should be **DOWN**. You may then replace the front panel.



These Hayes modem switches perform the following tasks and are listed here in case you are using another 'compatible' modem.

SWITCH # -----FUNCTION-----

- | | |
|--------|--|
| 1 UP | DTR signal is computer controlled. |
| 2 UP | Verbose Mode. (Ignored by switch #3 setting). |
| 3 UP | Quiet Mode. No Result Codes or Phrases are sent to computer. |
| 4 DOWN | No characters are echoed back to Computer. |
| 5 UP | Automatically Answer Incoming Calls. |
| 6 UP | Carrier Detect signal activated. |
| 7 UP | Use with single line phone. |
| 8 UP | DOES NOT MATTER — Not Used. |

A 'HAYES Compatible' modem MUST have these switches set appropriately, or it may not function correctly. Non-Hayes modems without these switches will probably not work correctly.

RECALL

You can call a remote location and 'RECALL' its pages into your memory! This is useful when you want to make sure that everything is working correctly at the remote site or want to make changes.

To use this feature, simply follow the same procedure as when you transferred pages to the remote. That is, press 'ESC' - 'R', enter the telephone number and when you are asked to enter the page list, enter the letter 'R' (for 'RECALL'). The cartridge will establish contact and automatically transfer the contents of the remote site into your computer. As this transfer is taking place, you will see the pages appear on your screen. When the 'Recall' process is finished, the call will be terminated. The remote end will go back to displaying pages, and you will have an exact duplicate of the remote's memory in your machine!

BEWARE! Make sure that you have saved the contents of your memory on disk before using the 'Recall' feature, since recalling erases anything that you previously had in your memory and replaces it with the remote's memory.

REMOTE VIEWING

Remote Viewing is an automatic feature! As you transfer pages to a distant site you will see these pages appear on your screen. **WHAT YOU ARE SEEING IS THE PAGE AS IT WAS RECEIVED AT THE DISTANT SITE!** It's comforting to know that your pages arrived the way you sent them! And, if there was any error in transmission, you will see the correction being made automatically!

ERROR CORRECTION

Errors caused by noise on the telephone line will be corrected automatically. If the line is simply too noisy for efficient transfer of data, it will terminate the transmission and inform you of the problem. We designed the software to be sensitive to your telephone expenses. Sometimes, particularly on long distance calls, you can eliminate a noisy telephone line simply by redialing the call. It takes less time, and costs you less, to transfer pages when the line is good.

In most circumstances, you will rarely, if ever see a transmission error.

DIALING THROUGH A PBX OR COMMON CARRIER

If you are dialing through a central PBX telephone system or are making long distance calls through a Special Common Carrier such as MCI or SPRINT, you can use some additional dialing codes to make your work easier. If, for example, you want to add a 2 second pause to allow extra time for connections, you can use a ',' (comma) between numbers to get a pause. Each comma adds a 2 second pause. So, a 4 second pause can be created by using two commas. For example:

9,,555-1212

would dial 9, then wait 4 seconds for access to an outside line, then dial 555-1212.

Long Distance Common Carrier services require the dialing of a local number, entry of a special access code, and finally the number that you want to call. Once, you have dialed the local number, you need a Tone-dialing phone to enter the code and telephone number. If you are using a smart modem, you can easily switch between pulse and tone dialing, allowing you to dial the Common Carrier using pulse dialing and then switch to tone dialing for the rest of the code. For example:

P441-1234,,T7654321, (206) 638-2670

will dial the Common Carrier's local access number (441-1234) using pulse dialing. Then, wait 4 seconds for a connection, switch to tone dialing, enter the user's access code (7654321), wait 2 more seconds and then dial the desired number! While this seems complicated, it illustrates the level of complexity that you can achieve.

RE-DIALING

If you need to re-dial the last number called, you may do so with the HAYES Smartmodem. Instead of re-entering the telephone number when prompted, type:

CA/ 'RETURN'

'CA/' stands for 'Call Again'. But, this works only with the HAYES or HAYES-compatible modems.

DELAYED ANSWERING

It may be desirable to have the modem at the remote site wait several rings before automatically answering. This is useful if the same telephone line is to serve double duty as a communication link to a headend technician. At your headend, you can manually set the HAYES Smartmodem to delay answering by entering:

'ESC' - 'R'

Instead of entering the telephone number, type:

C AT S0 = 3 'RETURN' 'RETURN'

This will send a command to the HAYES Smartmodem to answer after 3 rings. Wait at least 5 seconds after entering this code, then press 'BREAK' to get back to the HELP screen.

NOTE: DO NOT set the delay to more than 7 to 8 rings. The cartridge will wait for up to one minute for an answer before it assumes that there is not going to be any answer and terminates the call.

MANUAL DIALING

In some cases, it may be necessary to manually dial the telephone and establish audible contact with the modem before sending data. To do this, enter 'ESC' 'R' as normal. But, instead of entering the telephone number when prompted, just press 'RETURN'. Then, enter the pages that you desire to send — but, **DO NOT PRESS 'RETURN' yet!** Use your telephone to dial the remote site. When you hear the modem tone, press 'RETURN', wait one or two seconds, and hang up the telephone instrument. The transmission will proceed and terminate normally.

OTHER REMOTE COMMANDS

If you are using the HAYES Smartmodem, or a 'smart' modem from another source, you can send special command codes to the modem by using the 'C' command built into the cartridge. When you are asked to enter the telephone number enter a 'C' followed by the command code required by your modem. For example:

C xxx###

would send the command 'xxx###' to the modem directly. Any printable character can be sent to the modem whether it be a sequence or letter and numbers, or some other combination of letters, numbers and graphic symbols. 'ESC' or similar codes **CANNOT** be sent. Few modems use these anyway. Most of the current batch of smart-modems imitate the HAYES commands so that they can be compatible with existing software.

A list of useful commands for HAYES and HAYES-compatible modems is included in the Appendix section of this manual.

SECTION 4. GRAPHICS

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GRAPHIC CHARACTERS

The INFO/soft 5000 cartridge comes equipped with five special character sets most of which can be used to create graphics. There are some 500 graphic symbols which can be used to create a wide variety of graphic designs. The Fonts are numbered according to the following chart:

<u>FONT NO.</u>	<u>UPPER/ LOWER</u>	<u>GRAPHICS STYLE</u>
1	Both	International
2	Upper	Double Height
3	Upper	Blocks/Lines
4	Upper	Prestel-like
5	Both	Mosaic

FONT 1 — INTERNATIONAL CHARACTER SET

Font 1 contains both Upper and Lower case characters plus a set of 'International' characters which are displayed by holding down the CONTROL key while pressing the appropriate character. The location of the characters is shown in the diagram on the facing page.

Hold 'CONTROL' Key Down:

	1	2	3	4	5	6	7	8								
ESC						í	ÿ	f								
	Q	W	E	R	T	Y	U	I	O	P						
TAB	â	ê	ô	û	é	à	è	ï	ö	ü					RET	
	A	S	D	F	G	H	J	K	L	;						
CTRL	ù	î	ç	ò	ì	£	ü	ä	ö	Ä					CAPS	
	Z	X	C	V	B	N	M	,	.							☑
SHIFT	À	à	É	ñ	Ñ	ó	ú	á	í					SHIFT		

Hold 'SHIFT' Key Down:

! " # \$ % & ' @ ()														
ESC	!	"	#	\$	%	&	'	@	()				
Q W E R T Y U I O P - =														
TAB													RET	
A S D F G H J K L ; + *														
CTRL											;	°	CAPS	
Z X C V B N M , .														
SHIFT											SHIFT			

Press 'CAPS' Once:

ESC													
Q W E R T Y U I O P													
TAB	q	w	e	r	t	y	u	i	o	p			RET
A S D F G H J K L													
CTRL	a	s	d	f	g	h	j	k	l				CAPS
Z X C V B N M													
SHIFT	z	x	c	v	b	n	m				SHIFT		

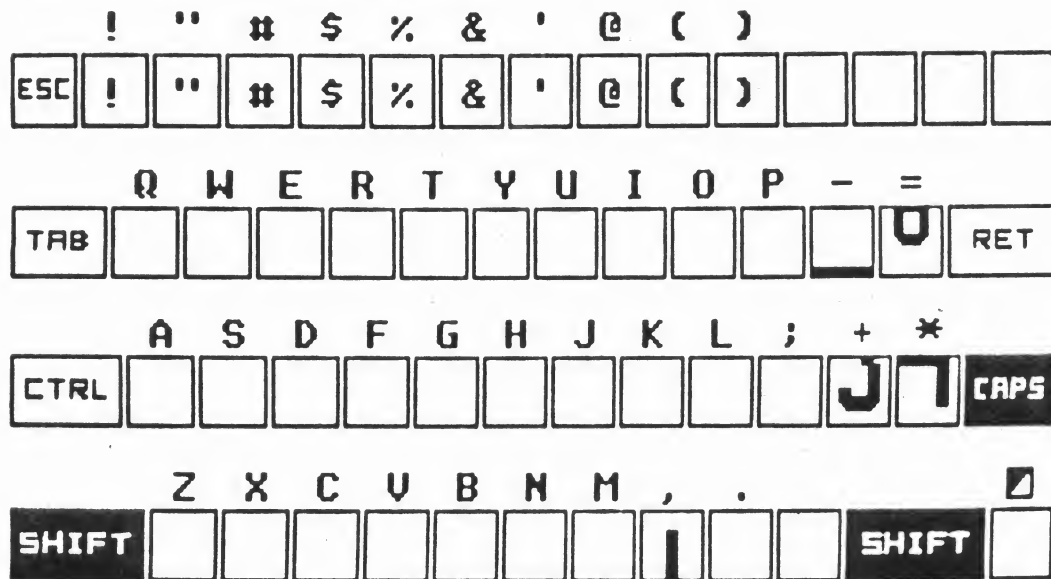
FONT 2 — DOUBLE HEIGHT CHARACTER SET

Font 2 has a special 'Graphic' set that allows the use of both Large and Small text on the same page. Instead of lower case letters and graphic symbols, the characters are divided into top and bottom halves of larger characters. For example, to put a large letter 'A' on the screen, press 'CONTROL' 'A' for the upper half of the 'A', then move the cursor underneath the upper half. Press the 'CAPS-LOWR' key once to place the keyboard into Upper/Lower case and press 'A'. The lower part of the letter will be printed and you will have a large letter 'A'. This Font is very useful for titling pages of small sized text. Return to normal size text by pressing 'SHIFT' and 'CAPS' simultaneously.

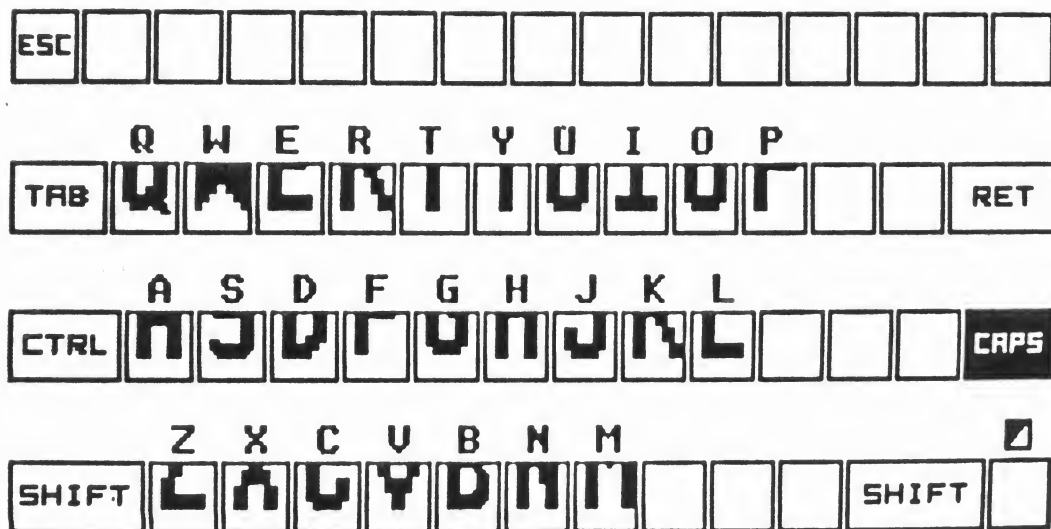
Hold 'CONTROL' Key Down:



Hold 'SHIFT' Key Down:



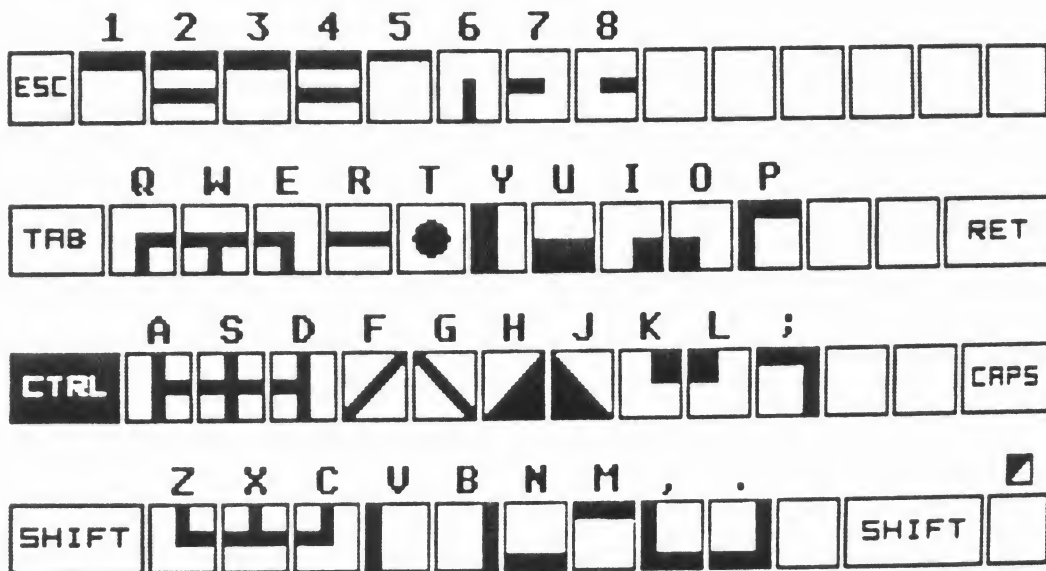
Press 'CAPS' Once:



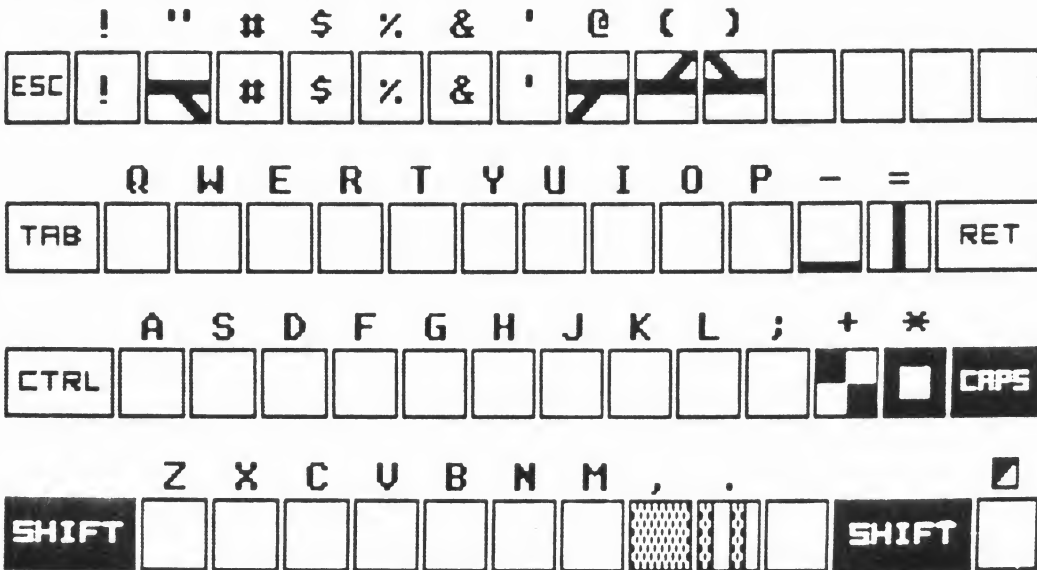
FONT 3 — GRAPHIC LINES AND BLOCKS (INFO/soft 5000 only)

Font 3 has an extensive graphic character set that provides 150 graphic symbols. Lower case characters are NOT available with this font. Lower case characters have been replaced with additional graphic characters. The charts below show the positions of these graphic symbols on the keyboard.

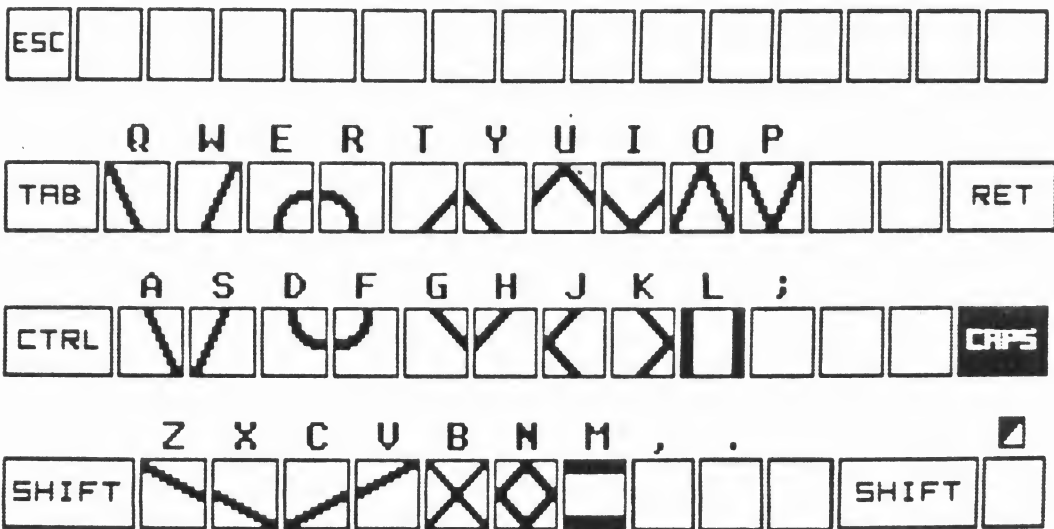
Hold 'CONTROL' Key Down:



Hold 'SHIFT' Key Down:



Press 'CAPS' Once:



 Colored Blocks

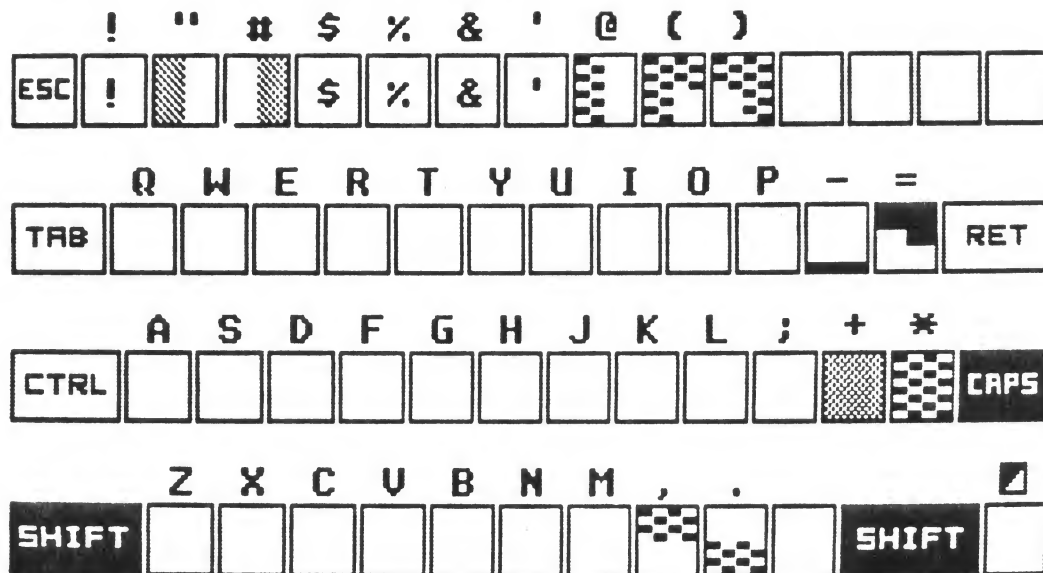
FONT 4 — PRESTEL-LIKE GRAPHIC SET (INFO/soft 5000 only)

Font 4 is an extended set of 'Block Mosaic' graphic characters used in Prestel and other International Teletext systems. In addition, there are extra graphic symbols to further enhance your graphic designs. As in Font 3 above, only Upper case letters are available in this font. The Lower case characters have been replaced by extra graphic symbols. There are 158 graphic symbols in this character font when used in normal and Inverse video modes.

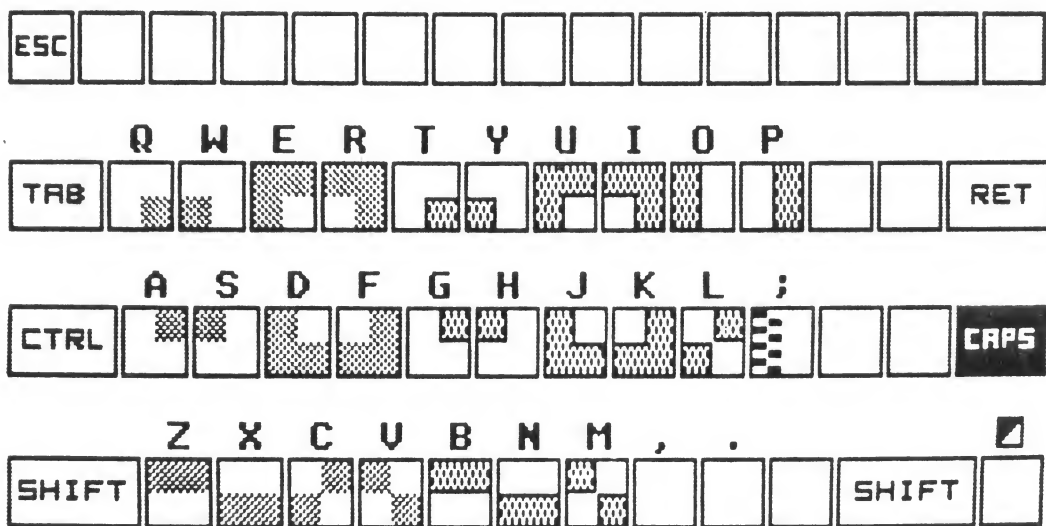
Hold 'CONTROL' Key Down:

	1	2	3	4	5	6	7	8									
ESC		▬		▬		▬	▤	▥									
	Q	W	E	R	T	Y	U	I	O	P							
TRB	▤	▥	▦	▧	▨	▩	▪	▫	▬	▭						RET	
	A	S	D	F	G	H	J	K	L	;							
CTRL	▮	▯	▰	▱	▲	△	▴	▵	▶	▷						CAPS	
	Z	X	C	V	B	N	M	,	.								▸
SHIFT	▹	►	▻	▼	▽	▾	▿	▸	▹						SHIFT		

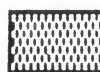
Hold 'SHIFT' Key Down:



Press 'CAPS' Once:



Tint 1

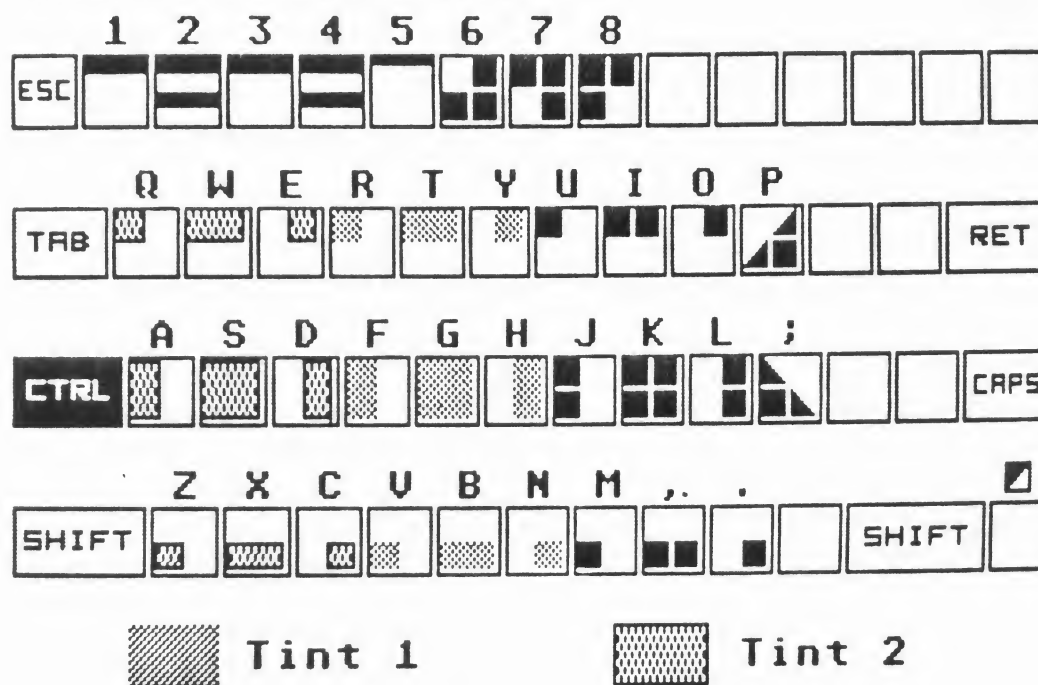


Tint 2

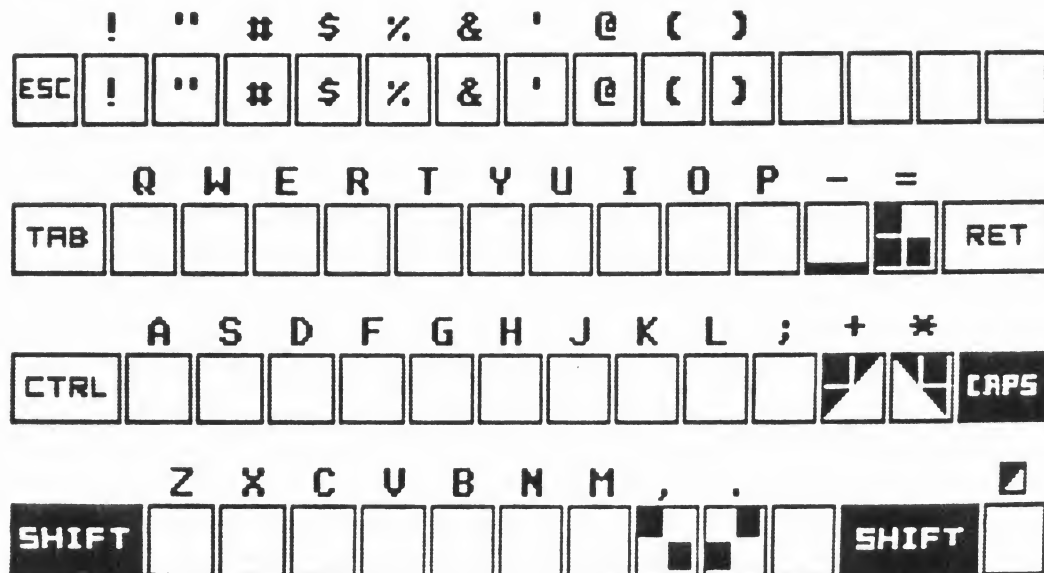
FONT 5 — MOSAIC GRAPHIC SET (INFO/soft 5000 only)

Font 5 provides Mosaic block graphics. They are easy to use, and very good for borders and simple designs. Both Upper and Lower case characters can be used. The colors of the mosaic blocks are 'transparent'. They are 'Blue' and 'Red' transparent blocks whose final color also depends upon the color of the background. This gives the graphic artist another element of creativity. Select the graphic symbols by holding down the 'CONTROL' key while pressing the appropriate graphic key.

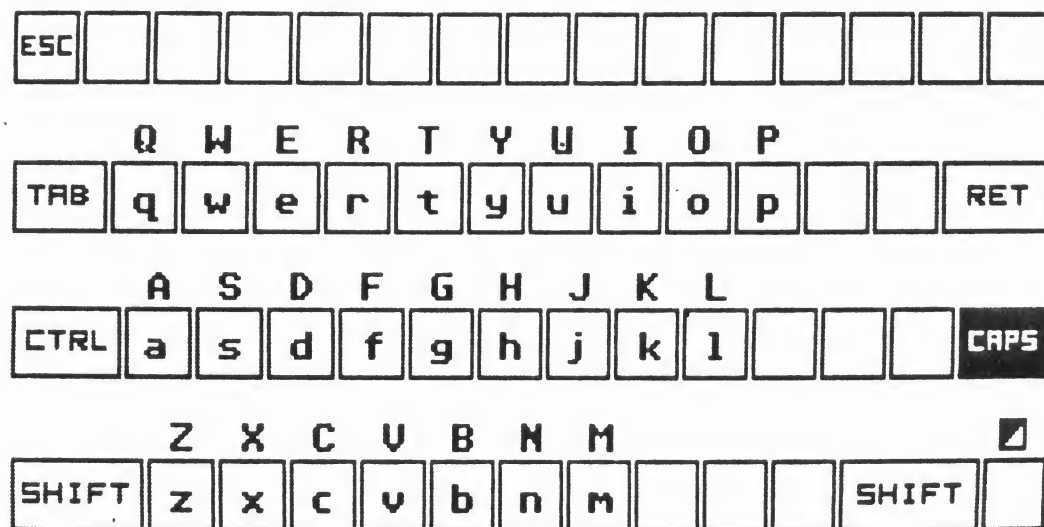
Hold 'CONTROL' Key Down:





Hold 'SHIFT' Key Down:




Press 'CAPS' Once:



USING INVERSE VIDEO

All characters, text and graphic, can be used in their 'Inverse' forms, by pressing the  key once. Each time you press the  key, you switch between 'Normal' and 'Inverse' video. For example:

Character	Keystrokes	Character	Keystrokes
	Control A		 Control A
	Control B		 Control B
	Control C		 Control C

Using the  key effectively doubles the number of graphic characters that you have available. In fact, the Graphic Fonts were designed with this in mind. If, for example, you wanted to put a solid block the size of an entire character on the screen, press the key and then hit the SPACE bar!

DESIGNING GRAPHICS

There are basically two steps to the creation of a graphic image:

- a. Layout of the image on graph paper
- b. 'Keying' the image onto the screen

Once the image has been created, it can be saved onto a diskette for use again and again.

Except in cases where the image is quite simple, it is usually best to lay out a graphic design on a piece of graph paper before 'keying' it onto the screen.

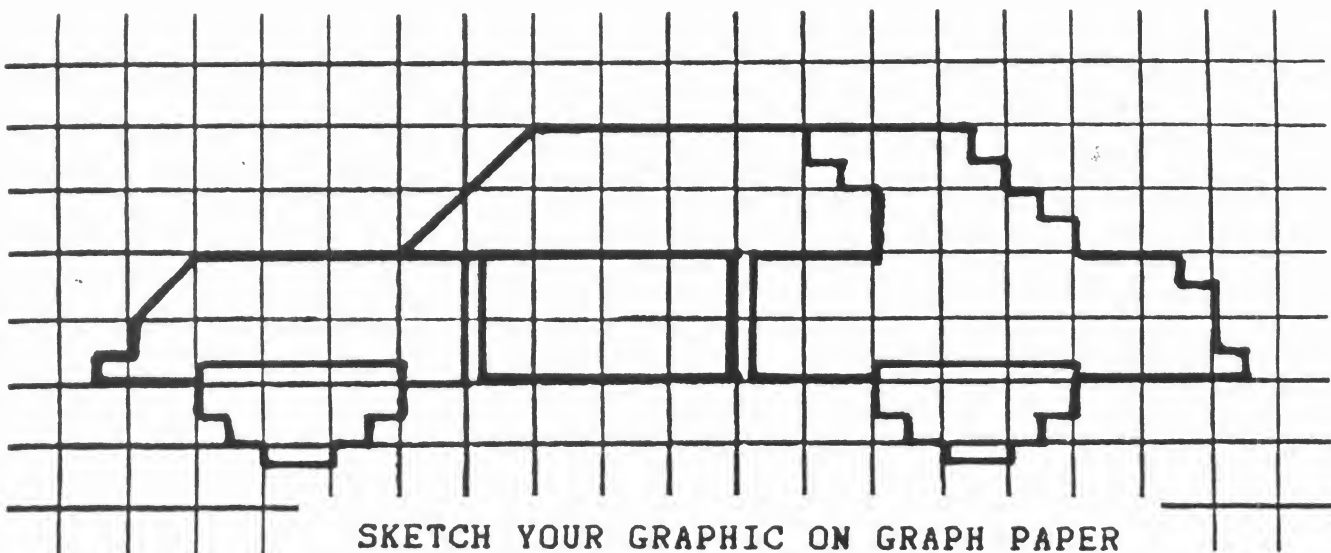
DESIGNING GRAPHICS

SAMPLE DESIGN

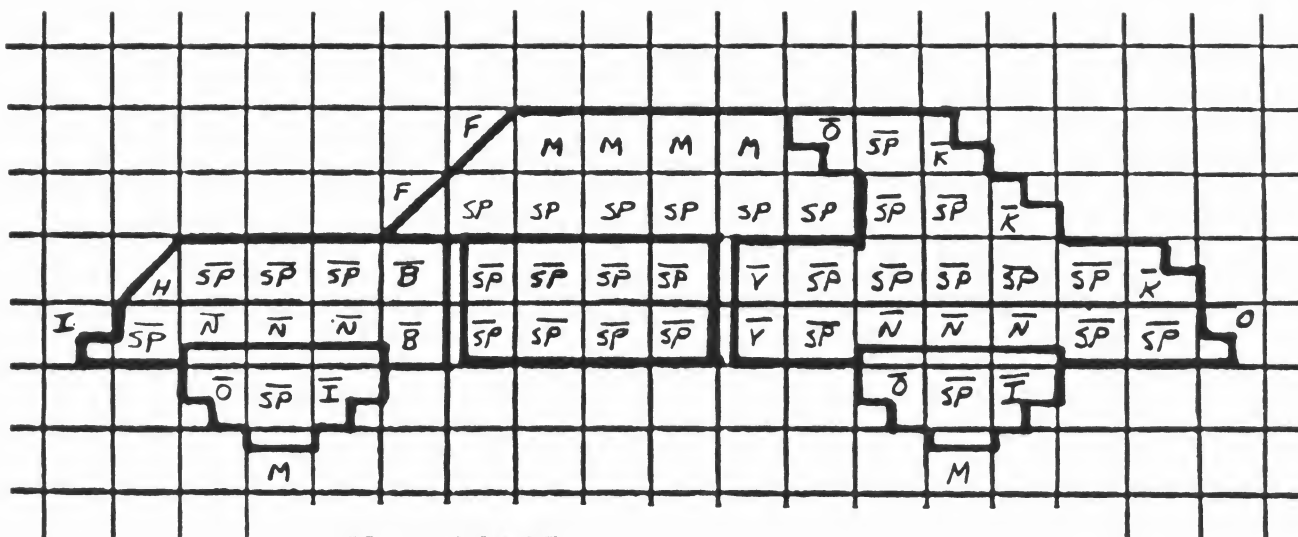
In the sample below, notice how we have sketched the image of the car on a peice of graph paper. Then, in the next sample we have used the graphic symbols of Font 3 to 'fill in' our sketch. Now, we can begin 'keying' our graphic onto the screen. When we are done, we should have a car that looks like our final sample.

You can use any graph paper. Each one of the screens is 40 columns, or boxes, wide and there are 16 lines.

Creating graphics takes time to master. It will not seem as difficult once you have practiced. Keep experimenting, and soon you will be creating masterpieces!

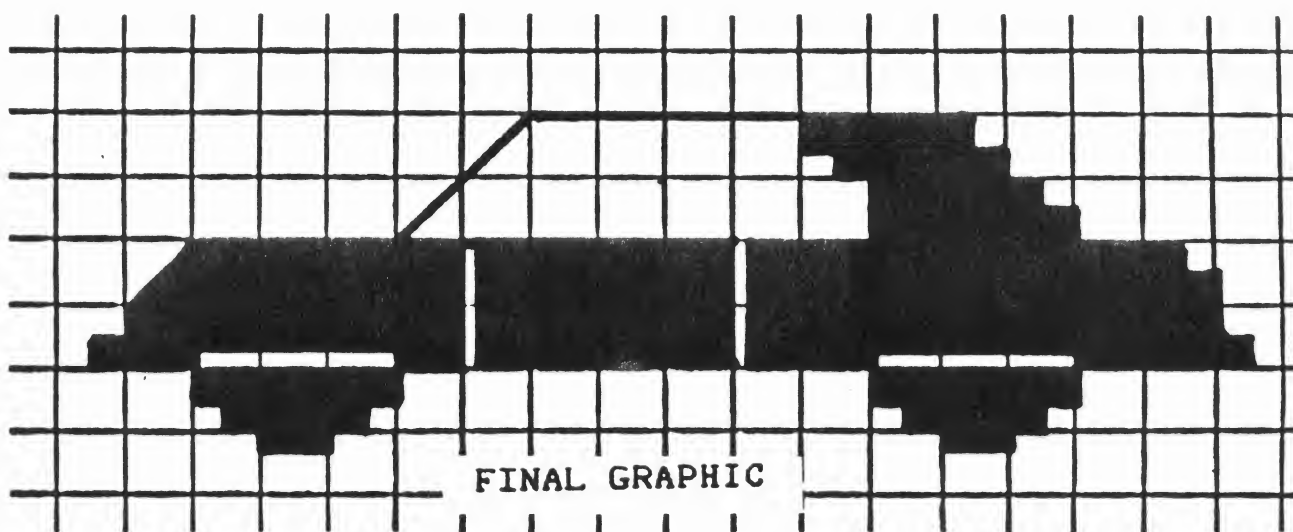


SKETCH YOUR GRAPHIC ON GRAPH PAPER



SP = SPACE

\overline{N} = INVERTED VIDEO, CONTROL 'N'



SAVING YOUR DESIGNS

Save your creations on disk just as you would save an ordinary page. You will probably want to create a special disk just for your graphic creations. Make a copy of your 'System Disk' as described in Section 2 — Set up. Then, save your graphic using the 'ESC' -'S' command and keep a separate 'table of contents' for future reference.

USING THE GRAPHIC LIBRARIES

If you are using the optional Graphic Libraries, your task of dressing up your displays will be considerably easier. These Libraries contain 80 graphic designs per volume and are contained on a single diskette. You must, of course, have a disk drive as part of your system. Simply choose a graphic design from the catalog supplied with the disk, and load it just as you would any page that was previously saved to disk. Once the graphic image is on your screen, just add your message or advertising copy!

COMBINING DIFFERENT GRAPHICS

Different graphics can be combined on the same screen as long as they use the same Graphic Font and Format. To do this, we will make use of the 'X-2' Duplication feature described in the previous section. First, decide which of the graphic designs you want to combine. Select two blank pages and load each graphic into a separate page. Next, using the 'Character Insert and Delete' keys and the 'Line Insert and Delete' keys, position each of the graphics in the desired location. The final step is to lay the second page over the first to create the new combined graphic. Go to the first page. Press 'ESC' - 'X' - '2'. Then enter the number of the second page. The second page will then be overlayed on the first!

You can create interesting effects by overlapping graphics as well. Take one graphic, load it into both empty pages, then position one slightly different from the first. Then, use the same 'ESC' - 'X' - '2' procedure to overlay the second page on top of the first, or vice versa.

ANIMATED GRAPHICS

Using a procedure similar to the above, you can rapidly create an animated display. Suppose you want to create an animated display of a moving car. Design the basic graphic, or load in a predesigned graphic from a Graphic Library volume. Let's say, we decide to use 6 pages in our animated sequence for a nice smooth motion. Make 5 copies of the car graphic that you previously created. For convenience, let's use the next five pages so that all of our animated sequence is located in the same area of memory. Make these copies by using the 'X-2' Duplication feature:

'ESC' - 'X' - '2' - (Page #) RETURN

The 'Page #' is the page where the original graphic is located. Next, using the 'Line Insert' & 'Line Delete' position the car in such a way that it will form a smooth animated sequence with the car travelling from right to left. Set each of the page DWELL times to 0.

'ESC' - 'D' - '0'

To overlay your text on these pages, select a blank page, write your text message, then follow the procedure outlines in the section above —
COMBINING DIFFERENT GRAPHICS.

Within just a few minutes you have created an attractive animated sequence!

GRAPHIC LIBRARY CATALOGS

The following area is reserved for Graphic Library Catalogs. Place these catalogs here for quick reference. Contact INFO/soft Technology, or your dealer or distributor, for a list of available graphic volumes.

USE GRAPHIC SET # 3

TITLE FONT 1

title font 2

TITLE FONT 3

TITLE FONT 4

TITLE 5

title font 6

USE GRAPHIC SET 4

TITLE FONT 7

title font 8

TITLE FONT 9

title font 10

USE GRAPHIC SET # 2

TITLE FONT 11

TITLE FONT 11

USE GRAPHIC SET # 5

T I T L E 1 2

t i t l e 1 3

USE GRAPHIC SET # 3

T I T L E F O N T 1 4

X4 - SEQUENCE COUNTER

If you are using your system for advertising, you may want to have an actual confirmation of the number of times an advertisement has appeared. The cartridge contains a serial display counter that counts the number of times it has displayed a sequence of pages. The counter is reset to 0 when the computer is first turned on. Each time it completes a display sequence, it advances one count. To retrieve this serial count, press 'ESC' - 'X' - '4'. The count will be displayed on the prompt line. Subtract the number from your previous reading to get the number of times the display has cycled since your last reading.

If you want to check the display counter of a remote system, simply dial up the remote system and using the 'Recall' feature, begin recalling the pages in memory. Since the display count is among the first part of memory to be recalled, you can terminate the recall procedure as soon as you see upper region begin to transfer. Do this by pressing 'BREAK'. This will have no effect on the remote end; it will just go back into the display mode and continue as before. Then, use the 'X4' command to retrieve the display counter number transferred from the remote site.

X5 - ADJUSTING THE CLOCK SPEED

While the clock is controlled by a quartz crystal, small variations in the crystal tolerance sometimes cause minor time errors. Over the course of a month or so, these can cause the clock to be in error by perhaps $+/-$ 10 seconds or so. By using the 'X-5' function, you can actually compensate for this minor error and adjust the clock to an accuracy of a second or less per month. Just press:

'ESC' - 'X' - '5'

The prompt line will look similar to the following:

Adjustment Counter: 3852

The number is actually a software adjustment for the clock. To make the clock run **FASTER**, **LOWER** the number using the **DOWN ARROW** key. (Do **NOT** hold down the 'CONTROL' key when doing this). Likewise, to make the clock run **SLOWER**, **RAISE** the number using the **UP ARROW** key. Experiment by changing the number slightly each day until you have found the exact adjustment. Then, record the number in your manual for future reference.

NOTE: We have included this adjustment for those of us who appreciate having an extremely accurate time reference. If you are going to use this feature, be sure to measure the clock accuracy against an accurate time source such as the National Bureau of Standards radio station WWV or WWVH, or similar International time signals. FOR MOST APPLICATIONS THE INITIAL ACCURACY OF THE CLOCK WILL SUFFICE. Finally, you must reenter this number if you turn off your system or have a power failure.

X9 - DIRECTORY DIALER

You can enter up to 32 telephone numbers in the directory. Each telephone number can be up to 32 digits long. Begin by entering:

'ESC' - 'X' - '9'

The current directory will be loaded from disk. To ENTER numbers, press the UP or DOWN ARROW keys to display the desired telephone number or blank area. Then, enter the number as you would normally do when sending to a remote site. A typical entry would be:

T 1-804-463-1201; THE INFORMATION CHANNEL

You can add a name, or other ID, to the telephone number. Just place a semicolon, as shown above, after the telephone number. Everything after the ';' will be ignored by the dialer.

After you have entered your numbers, press 'BREAK' to save on disk. To use the directory, use 'ESC' - 'X' - '9', then choose the number with the ARROW keys. Press 'ESC' and then enter the list of pages to send, just as you normally do with the 'ESC' - 'R' Command.

GRAPHICS VOLUME 1, SIDE 'A'

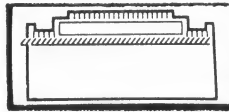
#1



#2



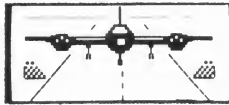
#3



#4



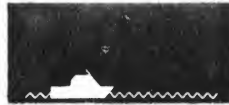
#5



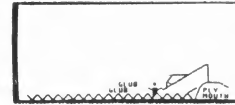
#6



#7



#8



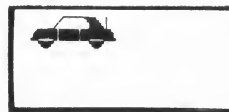
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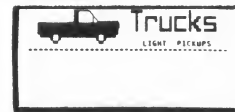
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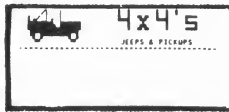
#11



#12



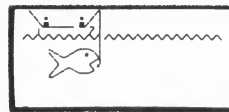
#13



#14



#15



#16



#17



#18



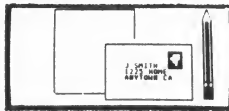
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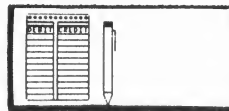
#20



#21



#22



#23



#24



#25



#26



#27



#28



#29



#30



#31



#32



#33



#34



#35



#36



#37



#38



#39

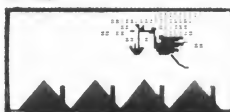


#40



GRAPHICS VOLUME 1, SIDE 'B'

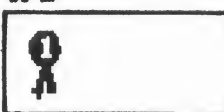
#1



#2



#3



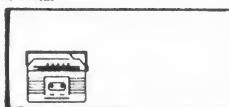
#4



#5



#6



#7



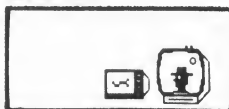
#8



#9



#10



#11



#12



#13



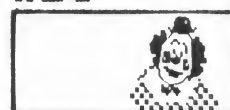
#14



#15



#16



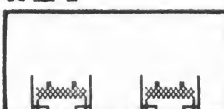
#17



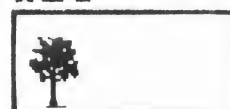
#18



#19



#20



#21



#22



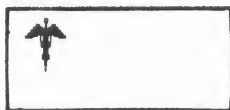
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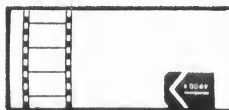
#24



#25



#26



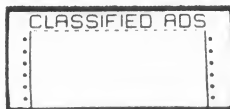
#27



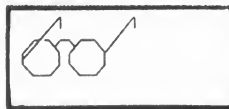
#28



#29



#30



#31



#32



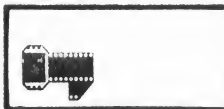
#33



#34



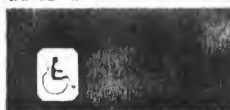
#35



#36



#37



#38



#39



#40



SECTION 5. OPTIONS

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This section is reserved for the operating manuals of various options that are available for the INFO/soft 3000 and INFO/soft 5000 display systems. We have however, included a brief description of some of these options. Please consult INFO/soft Technology, Inc. regarding price and availability. Many other options are planned, so be sure to consult us if you have any special requirements.

RS-232 ELECTRONIC INTERFACE ADAPTER

The RV-1 Interface Adapter is used to connect an Atari computer to an RS-232 modem, such as the Hayes Smartmodem 300. This adapter converts the Atari's non-standard serial output signals to RS-232 standards.

PRINTER ADAPTER

This is a Hardware and Software package consisting of an electronic interface that attaches to an Epson or Epson compatible printer, and disk software that prints graphic or text pages.

Use this whenever you want to keep a 'hard copy' of the contents of your INFO/soft 3000 or INFO/soft 5000 system.

LIMITED ACCESS VERSIONS OF INFO/soft CARTRIDGES

INFO/soft cartridges are being used in the Hotel/Motel industry and in-house message systems. Often these are provided by a third party who uses the system for advertising purposes. What they use is a 'Limited Access' version of the standard INFO/soft 3000 and INFO/soft 5000 cartridges. These 'Limited Access' versions permit the Hotel/Motel operator access to 10 or 20 pages of the computer memory. The entire page memory is accessible remotely to the third party.

For More Information, Check With Your Dealer or Distributor, or Write:

THE INFORMATION CHANNEL
2624 Southern Blvd., Suite 200-1
Virginia Beach, VA 23452
(804) 463-1201

TEMPERATURE DISPLAY

This Low-Cost Temperature Adapter allows the display of the Current Temperature reading, as well as the High Temperature and Low Temperature for the day. The adapter comes complete with 50 feet of cable for convenient installation, plus special disk software.

Temperatures are displayed in sequence on the bottom region of the screen.

VCR CONTROLLER — VIDEO TAPE INSERTION

This is a Hardware and Software package consisting of a Universal VCR Controller and disk software. The controller is wired across a VCR's button controls or to the VCR's remote control unit. Or, it can plug into a VCR's remote control jack, if so equipped.

The VCR controller allows an operator to display System 3000 or 5000 pages and then at a designated time to insert a Video Tape Message or program from the VCR. The controller can control these VCR functions:

PLAY	PAUSE
STOP	RECORD
REWIND	

Plus, it contains a built-in Audio/Video switch. All of these functions are controlled by the included software.

Operation is simple, too! Just designate the time that you want the VCR to perform a function and then tell it exactly which 'buttons' to push. For example, you may wish to play a locally produced program on a community access channel at 8 PM. To do this, you would enter:

8:00:00 PM [P] [D8] [V]

...meaning at 8:00:00 PM, push the [P]LAY button, [D]elay 8 seconds (for pre-roll of the VCR tape), then switch the Video Output to the [V]CR.

To Stop and Rewind the tape, say at 9:00 PM, you might enter:

9:00:00 PM [C] [S] [W]

...meaning at 9:00:00 PM, switch the Video Output to the [C]HARACTER GENERATOR (INFO/soft), [S]top the tape, and re[W]ind it. The VCR is then ready to replay the tape again.

There are many other features, too numerous to mention here.

The VCR Controller is ideal for use in Hotels and Motels for the playing of tapes showing local attractions and advertisements; in schools for educational programming; and, in hospitals for patient education.

SECTION 6. APPENDIX

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COMPUTER EQUIPMENT VARIATIONS

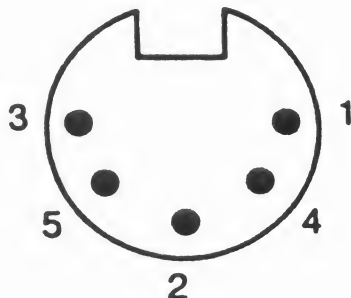
INFO/soft 3000 and 5000 cartridges are plugged into an Atari home computer. For the INFO/soft 5000, we recommend use of an Atari 130XE computer since it will provide a full 120 pages of memory.

COMPOSITE VIDEO OUTPUT

Video output is available from Atari's 'MONITOR' jack. Use a good quality D.I.N. - 5 pin connector and 75 ohm coax between the computer and the channel modulator. Use pins 2 and 4 for composite video as shown in the diagram below.

We have run video lines as long as 800 feet using RG/6 instead of RG/59 without any additional video amps in the line with good results. For longer runs, use larger cable or additional video amps. Consult your cable TV supplier for the appropriate hardware.

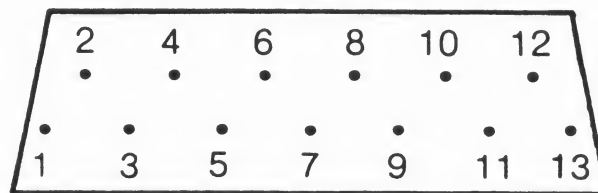
MONITOR JACK



1. Composite Luminance
2. Ground
3. Audio Output
4. Composite Video
5. Composite Chroma

INTERNAL VIDEO MODULATOR

If you are using the built-in R.F. Modulator, you may apply external audio to the modulator by connecting low-level audio to the 'Peripheral' connector on the computer as shown below. The internal modulator provides an output level of approximately 2 dBmv. This can be amplified and combined with other signals on a cable. For best results, a high quality cable modulator is preferred. However, there will be applications where the internal video modulator will provide adequate service.



Pin 11 - Audio Input

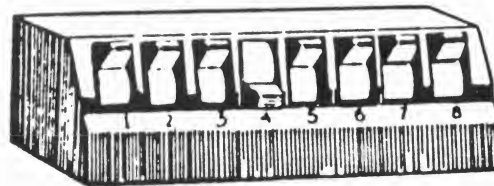
Pin 6 - Ground

MODEMS

We stongly recommend the HAYES SMARTMODEM 300. This is a very reliable unit with an excellent reputation and warranty. INFO/soft cartridges are set up to work with this modem with no additional changes.

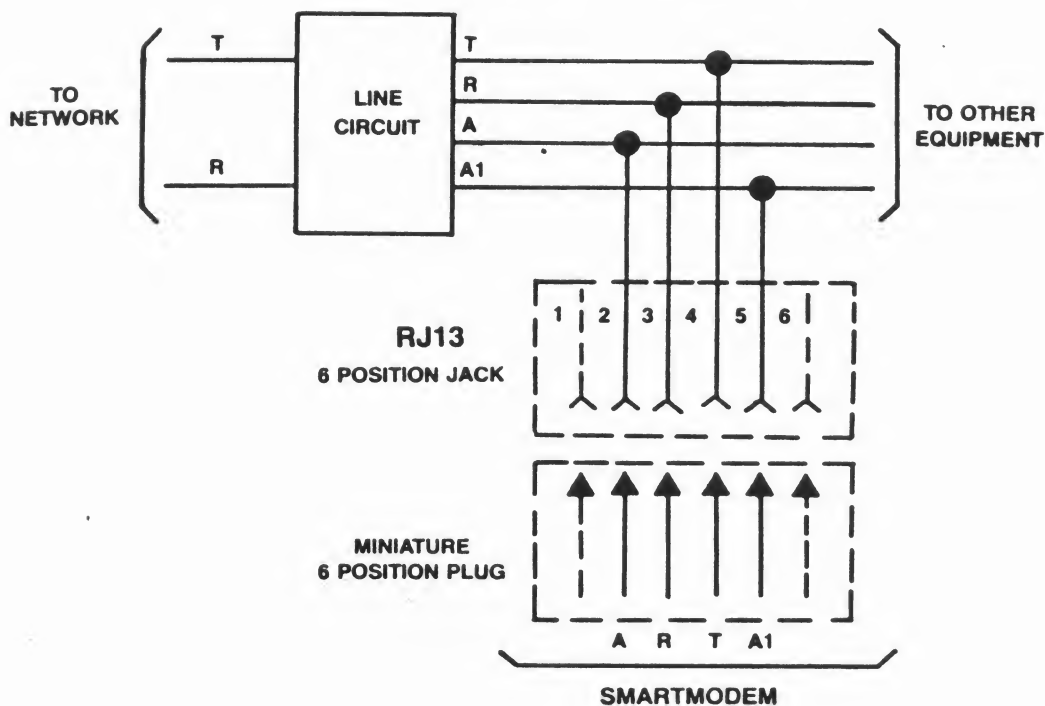
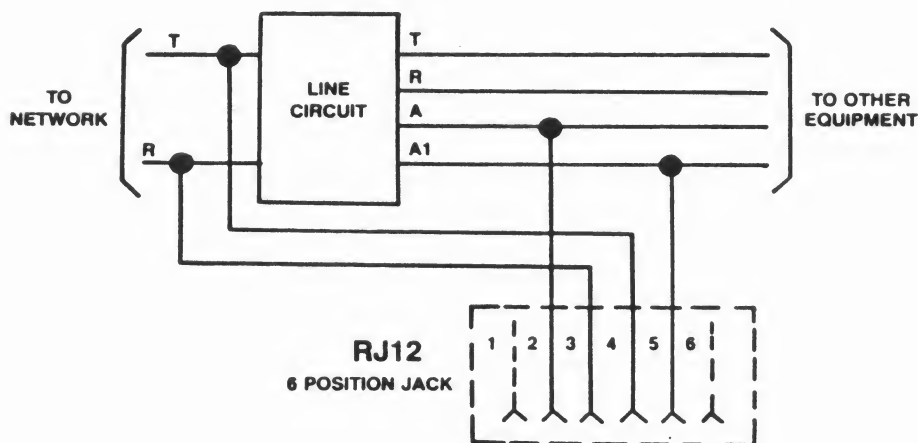
HAYES MODEM CONFIGURATION SWITCHES

The Hayes Smartmodem 300 has an 8 position switch located behind its front panel which must be changed prior to use. Remove the front panel. Refer to the illustration below and set all of the switches to their UP positions, EXCEPT switch 4 which should be OFF. Then, replace the front panel.



USING HAYES MODEMS ON MULTI-LINE TELEPHONES

You can connect a Hayes modem to work with Multi-Line Key Set telephone installations. In this case, Configuration Switch 7 is set to the Down Position. When the modem goes 'Off Hook', i.e. 'picks up the phone', the lamp on the telephone instrument will light. The figures below show how the modem is connected using RJ-12 and RJ-13 Modular Phone jacks.



DEFEATING AUTO-ANSWER

If you are using your Hayes Smartmodem 300 in your office and do not want the modem to answer incoming calls, set switch 5 DOWN. This defeats its Auto-Answering feature.

INSTALLING THE RS-232 CABLE

IF YOU ARE USING A HAYES SMARTMODEM 300, PLUG IN THE OPTIONAL RS-232 ADAPTER CABLE INTO THE 13 PIN CONNECTOR ON YOUR ATARI COMPUTER OR DISK DRIVE AND THEN INTO YOUR MODEM.

If you are using another modem, the signals and pinouts at the DB-25 connector are listed in the diagram below. Make sure that the needed signals from your modem appear on the right pins. If they do not, rewire the connector ON YOUR MODEM. It is not possible to rewire the RS-232 cable supplied, since there is a printed circuit board and several components within the connector itself.

PIN	—SIGNAL—	REMARKS
2	Transmitted Data	To Modem
3	Received Data	From Modem
6	Carrier Detect	From Modem
7	Ground	
20	Data Terminal Ready	To Modem

USEFUL HAYES COMMANDS

There are several useful commands that can be used with your HAYES or HAYES-compatible modem. Most of these are already described in Section 3 — Operation, and summarized here for your convenience.

P — Telephone numbers following should be PULSE DIALED.

EXAMPLE: P 206-638-2670

T — Telephone numbers following should be TONE DIALED.

EXAMPLE T 206-638-2670

, (Comma) — Causes a two second delay in dialing.

EXAMPLE: 9,206-638-2670

C AT SO = n — Causes the modem to automatically answer after 'n' rings (n = 1 to 5)

EXAMPLE: C AT SO = 3

C A/ — Redials the last number dialed.

C S11 = nn — Sets the touch tone duration and dialing speed. Normally, nn = 70 milliseconds. However, if this is too fast for the particular telephone system that you are using, you can change the value by making nn greater than 70.

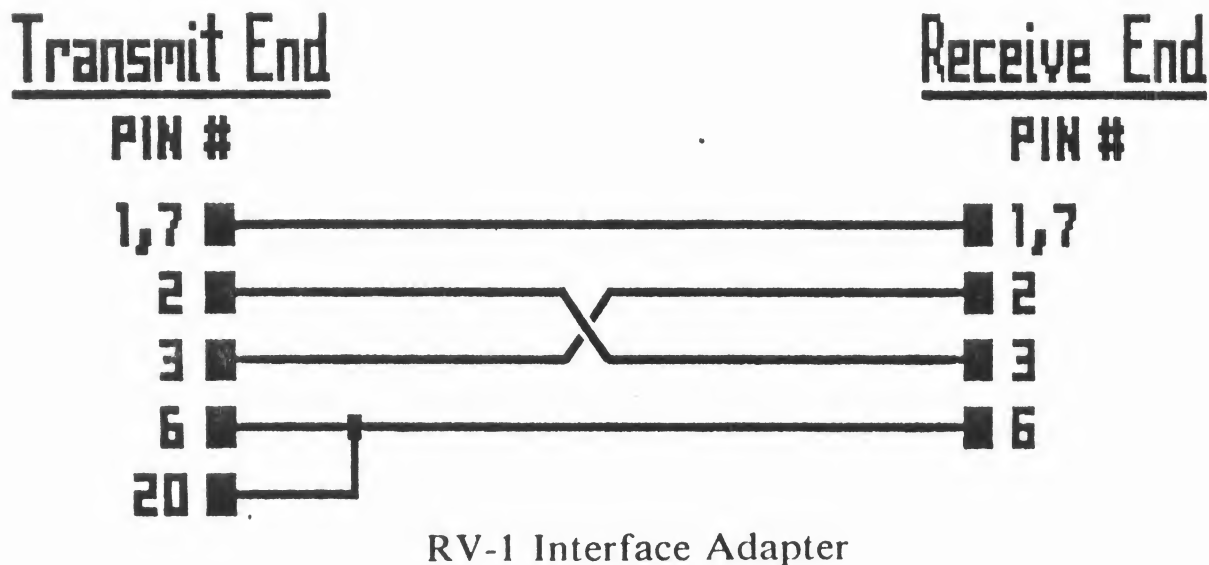
EXAMPLE: C S11 = 90

MULTI-CHANNEL OR WIRE OPERATION

INFO/soft 3000 and 5000 cartridges can be used without a modem. In applications where the headend is located close by, and where it is feasible to run a 4-wire cable, no modem would be required. Simply wire a length of 4 conductor cable as shown in the diagram below.

For longer cable runs, it is recommended that shielded cable be used to reduce noise.

For multi-channel operation, one INFO/soft system can be used as an off-line editor. One or more additional INFO/soft systems can be interconnected via 4 wire lines to the central editor. Switching of these 4 wire lines can be accomplished with a standard 4 pole switch, or done manually by inserting and removing the cables.

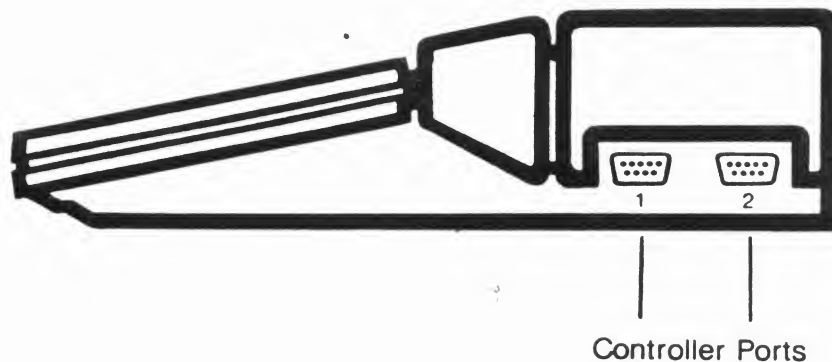


CONTROL PORT CONNECTIONS

Controller port #1 on the computer may be used to control several important functions within the cartridge. In some cases, it significantly expands the usefulness of the product in special applications. Below, you will find a brief explanation of the control lines that are available.

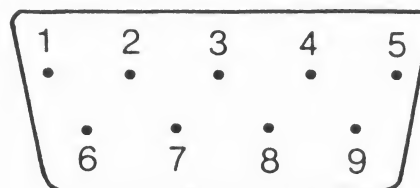
PIN # **PURPOSE**

- 1 EXTERNAL CONTROL LINE:** This pin goes to a logic LOW (0 VDC) whenever page 120 (or page 40 on an Atari 800XL) is displayed. This can be used to trigger an external device, such as a VCR, another character generator, etc.
- 2 BLACK SCREEN:** Bringing this line to ground causes the video screen to go to black. This line is used in Ad Insertion applications to allow clean switching from satellite video to cartridge video and vice versa.



- 3 **PAUSE:** Bringing this line to ground (LOW) will cause the page display to pause. It will remain in a pause mode until the line goes high again. Page dwell time will be 'frozen' as long as it remains in the pause mode. When it resumes normal operation, the page will finish displaying for the remainder of its allotted dwell time.
- 4 **STEP:** When in the PAUSE mode, bringing this line to ground (LOW) momentarily causes the page to advance to the next numerical page. If that page is blank, it will advance to the next filled page. Be sure that the input of this line is free of 'bounce' caused by poor switch contact closure.
- 5 **1200 BAUD MODEM SELECTION:** On powerup, the cartridge sets a 'default' modem speed of 300 baud. To change this default value to 1200 baud, run a jumper between pins 5 and 7.

CONTROLLER PORT



- 6 **RESTORE:** Bringing this line to ground (LOW) will restore the display to the first page in sequence. The display will start as soon as the line is brought HIGH (+ 5 V) again.
- 7 + 5 VDC (50 mA maximum)
- 8 **GROUND**
- 9 **BOTTOM REGION DISPLAY:** Allows choice of either TIME ONLY display for the Bottom region, or MESSAGE ONLY display instead of the alternating format normally used.

FOR MESSAGE ONLY DISPLAY:
Place a jumper between Pin 9 and Pin 7.

FOR TIME ONLY DISPLAY: Place a 270K resistor between Pin 7 and 9. The resistor may be any wattage value from 1/8 watt or greater.

NOTE: PORT 2 IS NOT USED AT THIS TIME. IT IS RESERVED FOR FUTURE EXPANSION.

MEMORY PROTECTION

Pages are stored in volatile RAM memory. If power fails these pages will be lost. However, there are two ways to save memory. The first method uses Disk Drive storage as a backup. If power fails, the disk automatically reloads and restarts the display. NOTE that the System Disk must be configured for this option (See SECTION II. SET UP for details). While there will be no loss in memory, the time will be incorrect and could affect operation if page scheduling is being used.

The second method allows you to add an external BATTERY BACKUP which keeps the computer FULLY OPERATIONAL for a period from 1/2 hour to several hours. You may use a standard Uninterruptable Power Supply or construct your own battery backup. A simple, low cost design is given below.

BUILDING A SIMPLE BATTERY BACKUP

Using ordinary components readily available at Radio Shack stores, you can construct a low cost battery backup for your Atari 800XL, 65XE or 130XE microcomputer. These models operate with a single 5VDC supply, The circuit is shown in the figure below, together with a list of components and their Radio Shack part numbers.

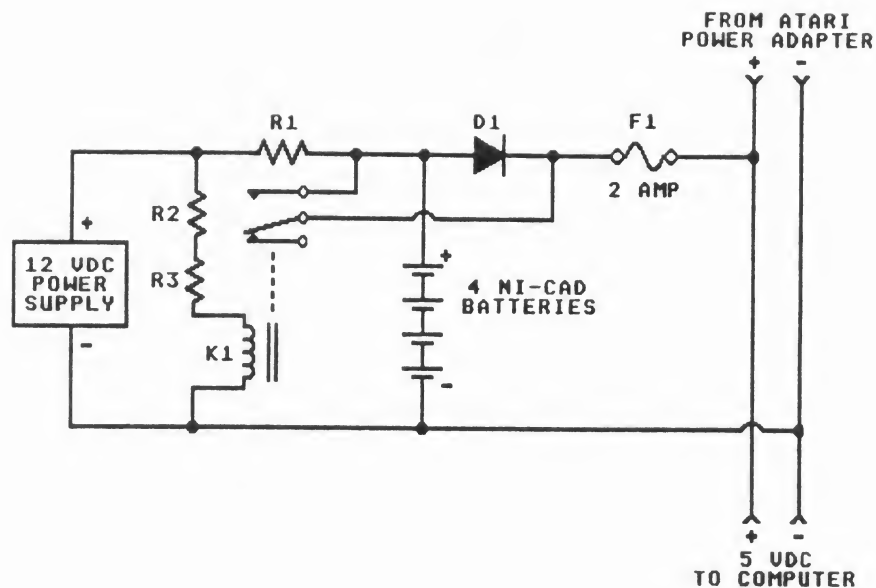
A set of 4 Ni-Cad batteries, rated at 1.1 Amp-Hours can be expected to provide a minimum of 1 hour of operation when fully charged. This circuit provides taper charge sufficient to recharge the batteries in 24 hours. A small trickle charge is provided to keep the cells completely charged.

In the event of a power failure, the batteries will take over immediately, discharging through the blocking diode. Within a few tens of milliseconds, relay K1 will de-energize and close the contacts across the diode. This is done to eliminate the 0.7 to 0.8 volt drop normally experienced with blocking diodes, and thus extend the length of operation. The computer itself will operate down to about 3.75 volts. The only change that you will notice is the varying of the screen colors as the voltage level drops. However, memory and normal operation will continue until the voltage level drops below approximately 3.75 volts.

When power returns, the batteries will begin to recharge; and K1 will place the blocking diode back into the circuit.

Note that Ni-Cad batteries lose capacity when they sit on a shelf. Therefore, newly purchased batteries are never fully charged, and in some cases may be nearly discharged when you first obtain them. It is best to let these batteries DISCHARGE completely before recharging them. Discharging the cell first breaks down oxide that forms on the cadmium electrode and ensures that the cell can be fully recharged.

If larger Ni-Cad batteries are used, you can increase the charging current by changing R1 to 50 ohms. Be sure you protect your equipment by using the appropriate fuses.



RADIO SHACK PARTS LIST

T1 —	DC Adapter, 12 VDC 500 mA (R.S. #273-1652)
R1 —	100 OHM, 10 WATT (R.S.- #271-135)
R2, R3 —	100 OHM 1/2 WATT (R.S.- #271-012)
D1 —	1N5400 Diode, or equiv., 3 Amp, 50 PIV (R.S. #276-1141)
K1 —	SPDT 5VDC Relay, 2 Amp Contacts (R.S. #275-243)
F1 —	Fuse Clips (R.S. #270-739) 2 Amp Fuses (R.S. #270-1275)
CASE —	Place in appropriate case, such as R.S. #270-222.
BATTERIES —	Rechargeable Nickel Cadmium 1.1 Amp Hour rating (R.S.- #23-124)
MISC —	Circuit Board, R.S. #276-150

Approximate Cost of the Above: \$40.00 U.S.

CONTROLLING EXTERNAL DEVICES

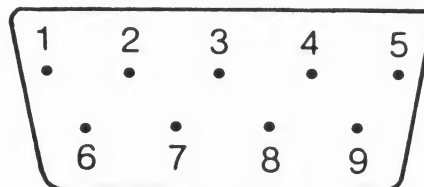
In some applications, it may be desirable to use your INFO/soft 3000 or 5000 to control an external VCR, or some other device. We have provided a special control line for this purpose on Pin #1 of Control Port 1 located on the side of the Atari computer. This pin, normally set to a logic HIGH (+ 5 VDC), goes LOW (0 Volts) each time page 120 (or, page 40 on a 40 page system) is displayed. Thus, by displaying page 120 in the sequence, you also send a signal out on the control line. This signal, in turn, is used to control external logic or relay that starts, stops and rewinds the VCR.

Page 120 can be set to display in increments from 1/4 second to over 2 1/2 hours!

EXAMPLE:

Suppose you have 30 pages in memory and wish to display these pages, and then play a 5 minute video tape. Set the dwell time of page 120 to 60 seconds.

CONTROLLER PORT



Next, use the following sequence:

1-30 (120)5

This tells the cartridge to display pages 1 through 30, then display page 120 for the dwell time (60 sec) times 5 ($60 \times 5 = 300$ seconds = 5 minutes). As soon as page 120 is placed on screen the control line on Pin 1 goes LOW and can activate the VCR. At the end of 5 minutes, the sequence repeats starting at page 1 again. Pin 1 goes HIGH, which can signal the VCR to Rewind. In other circumstances, you may want to play the video tape more often. Suppose you had 80 pages of information to be displayed, but wanted to insert a 30 second video tape commercial after every 20 pages. Set the dwell time for page 120 to 30 seconds, then set the page display sequence as follows:

1-20 120 21-40 120 41-60 120 61-80 120

Again, page 120 signals the external equipment to insert the video tape.

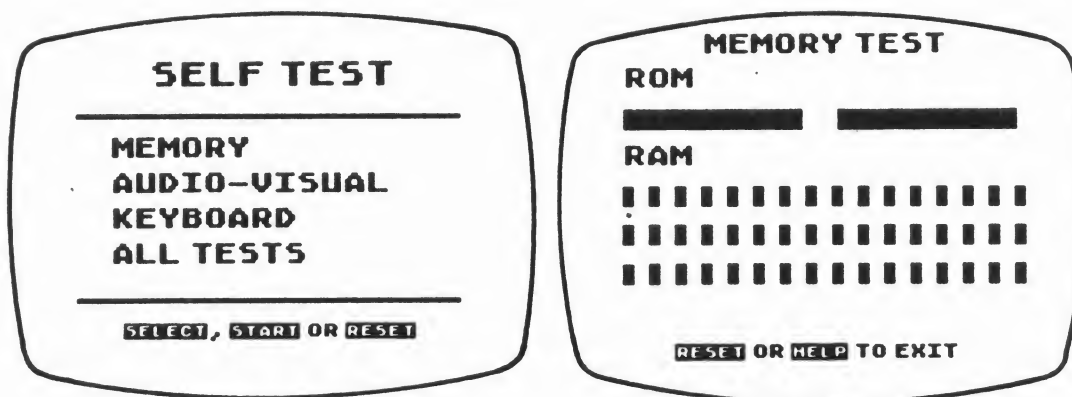
One further note, if simple relay switches are to be used when switching from the computer's video to the VCR's video, it may be desirable to have page 120 'Black Out' the entire screen so any roll caused by the switching will go unnoticed. You can do this by running a jumper between Pins 1 and 2. Pin 2 causes the screen to go black anytime it is brought LOW. Pin 1 will do this automatically.

COMPUTER TROUBLE-SHOOTING

The Atari 'XE' and 'XL' computers have a self-test feature that is helpful in isolating troubles. Start the tests by first turning 'OFF' power to the computer. REMOVE the INFO/soft cartridge. Then, while holding DOWN the 'OPTION' key, turn ON the computer. A 'Self-Test' menu will appear on the screen. Press 'SELECT' to choose a test, then press 'START'. Press 'HELP' to return to the self-test menu.

Use the 'Memory Test' to check the RAM portions of the computer. A Green indicator means that everything is OK. RED means a chip has failed.

Use the 'Keyboard Test' to check the keyboard for proper operation.



INFO/soft 3000 and 5000 SPECIFICATIONS

VERSIONS

INFO/soft 5000: 120 PAGES, Extensive Graphics.

INFO/soft 3000: 40 PAGES, Text Only - NO
GRAPHICS

PAGE MEMORY

Page Memory specified above is independent of page size. (Multiple units can be daisy-chained for even greater page capacity).

DISK STORAGE

If desired, memory can be backed up on one or two low cost 5 1/4" floppy disk drives. Automatically reloads and restarts display if a power failure occurs.

VIDEO STANDARDS

NTSC, PAL, SECAM automatically selected depending on the type of Atari computer used.

HELP SCREEN

Instantly available by pressing one key. Provides a quick reference for inexperienced operator.

MULTILINGUAL CAPABILITY

'Help Screen' and 'Prompts' provided in Five languages: English, Spanish, French, German, and Swedish. Other languages available on request.

REGIONS

Four. Completely programmable by user.

OPTIONAL HIGH RESOLUTION HEADER

Provisions are made to load a high resolution Logo or design into the Upper region of the screen. Logos can be loaded from disk or burned into the cartridge. Available on special order.

FORMATS

NTSC:

16 Lines x 40 Char.

16 Lines x 20 Char.

8 Lines x 20 Char.

PAL/SECAM:

20 Lines x 40 Char.

20 Lines x 40 Char.

10 Lines x 20 Char.

COLORS

128 Background/Text. Up to 8 colors per screen.

CRAWL

640 characters of crawl memory!

CLOCK/CALENDAR

Quartz-controlled, initial accuracy typically ± 10 seconds/month. Adjustable to ± 2

seconds/month or better. Clock can be displayed in either 12 or 24 hour format. Date is displayed in either MONTH-DAY-YEAR or DAY-MONTH-YEAR format.

CHARACTERS

Upper/Lower case and International characters displayable in normal and inverse video. INFO/soft 5000 has Five character sets with OVER 480 graphic characters! INFO/soft 3000 has Two character sets — text only.

CHARACTER SIZES/STYLES

INFO/soft 5000: sizes equivalent to 14, 24, 28, 40, 56 and 64 Interlaced TV Scan Lines. Several sizes per page allowed, depending on page format. Styles include Standard Font in Large, Medium and Small text sizes; Teletext, Serif, Mosaic, Data Processing, and Script-like styles included in 'Titling Fonts'.

INFO/soft 3000: sizes equivalent to 14 and 24 Interlaced TV Scan Lines. Up to two different sizes per page.

CHARACTER FLASH

On 20-Character Screen Formats.

GRAPHIC FEATURES (INFO/soft 5000)

Over 480 graphic symbols included in 5 character sets. Plus, Optional Graphic Library diskettes with hundreds of designs.

FULL EDIT CONTROL

- Full Cursor Positioning
- Automatic Line Centering
- Line Insert and Delete
- Character Insert & Delete
- Graphic Keys
- Inverse Video Control
- Time Set
- Dwell Time Select
- Save/Load Pages
- Remote Send
- Modem Speed 300/1200 Baud
- Page Duplication
- Tabs
- Page Erase
- Font Select
- Color Select
- Character Flash
- Region Select
- Clock Mode Select
- Format Selection
- Page Forward
- Sequence Control
- Start Display
- Display Preview

DWELL TIME/ANIMATION

Variable 0-99 seconds in one second increments, up to 2 1/2 hours in larger increments. Each page can be set independently of another. 1/4 Second Animation.

SEQUENCING

Random or Sequential Page Display. Blank pages are skipped automatically.

DISPLAY PREVIEW/ARCHIVING

Provides a quick preview of pages to be displayed in the appropriate sequence. Allows operator to verify that all pages are in their correct sequence before beginning normal display. Each page is displayed for 1 second regardless of its normal dwell time. Also allows operator to archive displays on video tape for future reference. (A single 2 hour tape typically stores 120 to 180 days of information!)

PAGE SCHEDULING

Pages can be preset to turn 'ON' or 'OFF' at specified times (within 1 minute) up to 30 days in advance!

REMOTE INTERFACE

RS-232 Interface compatible with most 300 and 1200 Baud modems. Requires low-cost electronic interface.

REMOTE TRANSMISSION TIME

Depending on the page format and length, transmission varies from as little as 1 second to a maximum of 22 seconds per page at 300 baud. Pages and regions can be sent individually or in a batch mode.

ERROR CORRECTION

Proprietary Error-Correction algorithm assures perfect transmission of memory from master to remote site. Remote Viewing feature shows pages as they are received at the remote site!

REMOTE RECALL

The user can call the remote site and reload all of the memory from the remote to the master location!

DIRECTORY DIALER

Allows user to store up to 32 telephone numbers and access codes of remote locations for easy dialing.

MULTICHANNEL CAPABILITY

Two or more Remote units can be interconnected to form multichannel systems with FULL OFF-LINE EDITING capabilities.

EXTERNAL CONTROL LINES

Provided for control of external VCR, commercial insertion, interactive control, modem speed, and misc display functions.

TIME SYNCHRONIZATION

Control line provided to synchronize page display with an external signal, such as a time clock. Used in 'Electronic Newspaper' applications to begin page display at the top of the hour so that special 'features', e.g. classifieds, occur at specific times during the hour.

COMMERCIAL INSERTION

Can be controlled by an external Cue-Tone Decoder/Switcher for insertion of graphic/text ads into the local advertising availabilities provided by satellite programmers.

VOICE-OVER AUDIO FOR COMMERCIALS

Control of page display can be synchronized to an external audio source such as an audio cassette player. Useful as a VCR replacement in commercial insertion systems. Requires Low Cost DTMF interface.

DISPLAY COUNTER

Provides a count of the number of completed page sequences. Used to verify advertising frequency. Accessable locally or remotely.

VCR CONTROL

Available as an option. Allows video tape program to be inserted into character generator channel at a designated time. Provides full control of VCR functions.

TEMPERATURE DISPLAY

Optional, Low-Cost Temperature probe and software displays current temperature, plus the high and low temperatures for the day.

VIDEO OUTPUT/VIDEO STABILITY

Automatically provides NTSC, PAL, or SECAM video depending upon the type of Atari computer used (available in NTSC, PAL-I, PAL-B, and SECAM versions). One Volt p-p into 75 ohms. (Not available on Atari 400 or 600XL). Excellent Video stability — No Jitter, No Edge Crawl.

DISPLAY AREA

Contained within 80% SMPTE recommended safe title area to allow for overscanned TV sets.

R.F. MODULATOR

Built In — Channel 2 or 3 (NTSC models).
Approximately +2 dBmV output. External Audio can be applied for background music.

POWER REQUIREMENTS/ BATTERY BACKUP

Entire computer operates on 5 Volts D.C. at approximately 800 mA. (4 Watts Total). Can be operated for an extended time by external battery pack.

POWER FAILURE PROTECTION

Computer memory may be protected from power failure by providing a simple battery backup, or by using a disk drive. On restoration of power, units equipped with a disk drive will automatically reload and resume operation.

COMPUTER SELF-TEST DIAGNOSTICS

Atari 130XE and 800XL have built-in diagnostic programs to pinpoint internal hardware failures.

RELIABILITY

Observed reliability indicates computer MTBF of greater than 30,000 hours continuous operation. Software cartridge MTBF calculated at greater than 150,000 hours according to semiconductor manufacturer.

WARRANTY

One Year Limited Warranty on Software. 10 Day Money Back Guarantee if not pleased!

COMPUTERS

Works on Atari 8-bit computers including 800, 800XL, 1200XL, and 130XE models. Specifications shown are for 130XE model. Other models will provide fewer pages of memory.

RECOMMENDED CONFIGURATION

Atari 130XE Computer, and a minimum of one disk drive such as an Atari 1050 or equivalent. Note: You do not need a disk drive to use the cartridge, but a disk drive does allow you to take advantage of many special features and gives you instant storage. One drive will store 40 pages of memory plus many extra features. When using the INFO/soft 5000, you can add a second drive to save another 80 pages of memory. (120 pages total).

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Atari 800, 800XL, 1200XL, 1050, 65XE and 130XE are trademarks of Atari, Inc.

LICENSE AND WARRANTY AGREEMENT

READ THIS CAREFULLY. YOU AGREE THAT BY ACCEPTING DELIVERY OF THE ENCLOSED PACKAGE THAT YOU HAVE AND ANY OTHER USER OF THIS SOFTWARE HAVE ACCEPTED THE LICENSE TERMS CONTAINED HEREIN.

A. What's In This Package?

The Materials inside include a copy of INFO/soft 3000™ or INFO/soft 5000™ cartridge, System Disk and a user manual.

B. Refund Policy

If you cannot agree to this license, you have three (3) days to obtain a full refund, by returning the package and your receipt to your authorized dealer, provided the contents of this package are in their original condition.

C. Support

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